Evolution of the Department of Medical Education

by Andrew MacDiarmid

I am grateful Stephanie Mowat gave me the opportunity to write an introduction to this edition of Med Ed News. I would like to reflect on my time as Acting Head and Head of the Department of Medical Education.

When I started in 2007, the Department had three members (outside of the Standardized Patient Program, which now belongs to the Clinical Learning and Simulation Program) and no administrative staff. The foci were faculty development and communication skills. Today the department has 9 members and has expanded its services to include educational development (including curriculum development and accreditation preparation assistance) and program evaluation. We serve all of the educational programs in the College of Medicine and have strong links to other Colleges in the Faculty of Health Sciences. This expansion has occurred under faculty leadership that saw the need for expanded educational services and supported our growth to that end. It also happened in a collaborative environment where individual educational programs recognized that some resources were best housed in a structure that served the entire Faculty, not just their own needs.

As you know, we are soon to become a resource not only to the College of Medicine, but to the entire Faculty of Health Sciences. With that move will come a name change, soon to be announced. We expect a physical move to new offices as well. While the group will continue to serve the Faculty, the Department as an administrative unit will eventually dissolve. At that point, it will no longer be possible to appoint members from other departments to ours.

I have already been in touch with such nil appointees, many of whom greatly value their appointments. We are interested in their suggestions for other ways we can recognize the many contributions these members have been making to the Department. Similarly our members remain keen to foster new connections with educators throughout the Faculty and to help them develop their educational skills in whatever way we can.

Also, as of March 2016, the department head position will no longer exist. I am grateful to Dr. Postl for the opportunity to have served the Faculty. I am sad to leave, but proud to have been associated with such an idealistic, talented and effective group of people. I look forward with interest to the next chapter in the life of the group!
Sometimes it seems that in education, we change things for the sake of changing. This may be due to the fact that evaluating educational innovations can be difficult, especially in a context where the main outcome variable, student pass rates, is already incredibly high. However, educational research can be used to distinguish whether or not an innovation or curricular change is an improvement.

When any major educational innovation is introduced in a program, traditional high stakes outcomes, such as graduation rates, pass rates, and exam scores, should be monitored. In certain contexts, these outcomes may very well be where these changes have an impact. However, in the context of a health professions school with high achieving students, the educational researcher often has to get a little more creative. Certainly, very few people would think that our system is perfect, despite high rates of student success, so changes can still be made that improve the system in other ways. Ultimately, it is a matter of figuring out where you want the innovation to have impact. And “knowing what the objective is makes it easier to establish the outcomes on which an intervention should be assessed” (Fokkema & Teunissen, 2013).

Kirkpatrick’s (1967) outcomes-driven model is one way of thinking of evaluating the impact of educational interventions. This hierarchical four-level model considers: level 1, reactions (did participants like the training?); level 2, learning (what knowledge changed after training and by how much?); level 3, behaviour (did participants change behaviour in practice after training?); and level 4, results (did behavioural changes affect the organization, patient care, etc.?). Parker (2013) suggests that this model could be expanded slightly, where level 1 is not just reaction or satisfaction, but also motivation and engagement, and where level 3 is not just whether or not behaviour changed, but also whether performance improved in a given context, such as in simulated settings. Kirkpatrick’s enhanced model is perhaps still a relatively unsophisticated way of thinking about impact, since it does not consider unintended outcomes or the complexity of the intervention and the system in which it is operating. Even so, it can provide a good starting point for considering where you expect or desire an intervention to have impact, allowing you to make decisions on evaluation and research regarding that intervention.

Take, for example, the curriculum renewal process happening in our undergraduate medical education (UGME) program. The focus of this innovation has been on creating an integrated curriculum that addresses UGME global objectives and the Future of Medical Education in Canada (FMEC) recommendations. This innovation was not undertaken merely for the sake of change, but rather to ensure that the physicians we were producing were equipped for 21st century practice.
Outcomes in Educational Research (continued)

The research on the new curriculum certainly includes pass rates on local and national exams from a quality assurance perspective, but it also includes other variables where we may expect change to occur. In this case, those variables include student self-assessed competency on the UGME global objectives along the trajectory of their undergraduate medical program and perceived preparation at transition points, namely to clerkship and residency. Additional outcomes are measured through explorations into student, faculty, and staff satisfaction with the new curriculum using surveys and focus groups. Therefore, this research is focusing predominantly on Kirkpatrick levels 1 and 2, with some evidence on the higher levels in the context of organizational change.

Similarly, looking forward into research on the implementation of a competency-based model in the postgraduate medical education program, we will use a broad, mixed methods approach to examine intended and unintended outcomes, such as perceived success or failure of implementation; effects of implementation on teaching and service; type and frequency of assessments, and so on. Again, pass rates will be an important outcome, but not the only outcome, in understanding whether or not the implementation of competency-based education was a success, as all Kirkpatrick levels inform this research.

Ideally, innovations would be significant enough that they improve the ultimate outcome variable: patient outcomes. This is often difficult to prove for a number of reasons, including limitations in possible study designs due to the educational context, confounding variables, etc. Even in CPD contexts where educational interventions could theoretically be implemented in physician practice immediately, any changes in patient care are often difficult to attribute to the intervention itself, though improvements have been made in this area (Cervero & Gaines, 2015). With pre-licensure participants not yet in practice, it may not be possible to demonstrate that an educational intervention has had any causal effect, intentional or otherwise, on the way they provide patient care years down the road. Considering that, as Shea (2001) indicates, “the primary customer of medical education is emphatically the learner, not the patient,” there is still value in looking at learner-centred outcomes such as knowledge, skills, attitudes, and satisfaction, even in a patient-centred healthcare model (Cook & West, 2013). Put in the context of the Kirkpatrick model, that means that there is still value in looking at learner-centred outcomes such as knowledge, skills, attitudes, and satisfaction, even in a patient-centred healthcare model (Cook & West, 2013). Put in the context of the Kirkpatrick model, that means that there is still value in looking at 1-3 outcomes. Ultimately, to make sure outcomes count, they should be carefully selected based on the study objectives and conceptual framework.


In the fall of 2015, after extensive consultation, the Royal College of Physicians and Surgeons of Canada (RCPSC) launched the updated CanMEDS competency framework for residency education. The CanMEDS framework is used in both specialty and family medicine residency education programs, as CanMEDS-FM in the latter. The framework has been adopted internationally (e.g. The Netherlands, Brazil, Australia) and in a variety of health professions (e.g. physiotherapy, physician assistants) (Van der Lee et al., 2013). Originally developed from the Educating Future Physicians for Ontario (EFPO) project (Maudsley et al., 2000) and adopted by the RCPSC in 1996, it has been revised in 2000, 2005 and most recently in 2015.

The latest iteration of the framework contains perhaps the most significant revisions to date. Some of the changes target ease of use (e.g. simpler, more direct language) while others support the RCPSC’s move to competency based education programs (e.g. the addition of milestones) and others reduce overlap between roles (e.g. communication with members of the health care team is moved to Collaborator from the Communicator role). Perhaps the most notable change is the change of the Manager role to that of the Leader role, recognizing that physicians need leadership skills to contribute to the ongoing improvement of health care. Other significant changes include new competencies focusing on care handovers and transitions in care; evidence-informed practice; and strengthening competencies in patient safety and quality improvement, critical appraisal, and lifelong learning. A full description of the changes to the document can be found here:


This change to the CanMEDS framework will require thoughtful integration into PGME curricula and assessment tools. The integration of milestones into resident assessments will be a foundational component of the implementation of Competence by Design, the RCPSC competency based education project. Moving forward, faculty development will be critical to implementing the new competencies. Stay tuned for more information regarding faculty development opportunities in Spring 2016.


Joanne Hamilton has been with Medical Education since 2007 and has been active in developing the department. Currently working on her EdD, Joanne has both a clinical background as a dietitian and a Master’s degree in Education.

What is your role in MedEd?
My role has evolved significantly since I started. In my current role, I work in curriculum development and evaluation; I also provide faculty development and am involved in educational research. Some of the projects I am involved in include UGME curriculum renewal, the development of the FHS faculty development platform, and rolling out competency based education in PGME.

What made you interested in medical education?
Graduating when I did, in the late 80s, you moved where the jobs were. My original career goal was to become an academic and do research in nutrition education. But when I graduated there wasn’t a big push for graduate students, and I ended up moving to Northern Ontario. My first job was Director of Dietetics at Dryden District General Hospital, then Director of Food and Nutrition for the three hospitals in the Rainy River District. Responsibilities grew, and I was recommended to lead the Northern Diabetes Health Network in Sudbury. After awhile, I found myself with two small kids and realized I didn’t want them to grow up not knowing their grandparents, so we moved back home in 1998.

One of the exciting opportunities that came up upon my return to Winnipeg was as Education Director in the Department of Family Medicine. Here was an opportunity to get involved in academia. And it was a wonderful place to start my career in medical education. During that time I did my master’s degree with a group of people from Medicine where we built a small community of medical educators. As I got more involved, more opportunities arose, and I moved to the Department in 2007. When you’re interested, you’re passionate, you’re involved, and things get done, doors seem to open around here. After 17 years in medical education, I can say I have never regretted my decision to join this team.

What is one thing you have learned while working here?
The one thing that I’ve learned while working here is that change is more a social action process than it is anything else. The more you can get out and talk to people, incorporate their views and provide an opportunity to contribute, the more the change is successful. Really change is about the whole organization learning. And if you take that lens, you ask, “Well, how do we best help the organization learn?” This changes your approach to managing change. I would say that’s been the biggest thing I’ve learned, and change is less threatening, and it’s a little bit easier to see success at the end.

What might someone be surprised to learn about you?
There are a few things. I am an introvert. If I go home, if I don’t stop somewhere before I get home, once I get home, I’m home. For me, the perfect weekend is ‘cocooning’ at home reading a book, baking, doing something creative and of course, exercising (I am still a dietitian!). I think people would also be surprised to know that I sew, and I paint (pictures not walls), and I like to design things. It’s been a little scanty, those creative pursuits, because I’ve spent so much time on my EdD for the past two years.

What are you currently reading?
I am reading Revelation Space, by Alastair Reynolds. I don’t know what it’s really about yet - I’m only at the first chapter. I just read Seveneves, by Neal Stephenson. Seveneves is a story of what happens when the moon comes apart due to a natural disaster, and how humanity survives even though the surface of Earth becomes uninhabitable.

What inspires or motivates you?
That’s a good question. Seeing someone being successful with something that we’ve done can be very motivational - that what we did actually made a difference. It’s hard to know where things start. We may sit at a committee and make a suggestion; we may make it two or three times to different people and also offer a faculty development workshop on a related topic. These little seeds take root, and changes happen. That is motivating.

—Interviewed by Stephanie Mowat
Members of Med Ed are continually engaged with the national and international medical education community through conferences.

**Emerging Technologies for Online Learning International Symposium**
Steve Yurkiw attended this conference which focuses on emerging technology applications for improving teaching and learning online.

**Canadian Conference on Medical Education (CCME)**
The focus of the 2015 CCME was leadership in medical education and health care. Approaching the topic from a number of angles, diverse speakers included Dr. André-Jacques Neusy, as a founder of the Training for Health Equity Network, to John Herdman, Head Coach of the Canadian Senior Women’s National Soccer Team. Joanne Hamilton, Stephanie Mowat, and Andrew MacDiarmid attended this conference.

Stephanie Mowat and her co-investigators presented one oral presentation and two posters:
- Peer-Assisted Debriefing of the Manitoba Physician Achievement Review: Feedback from the MPAR Reflection Exercise, Jose Francois, Stephanie Mowat
- Interprofessional Continuing Professional Development on Oral-Systemic Health Topics, Stephanie Mowat, Casey Hein, Tanya Walsh, Laura MacDonald, Ruby Grymonpre, Jeffrey Sisler

**Where’s the Patient Voice in Health Professional Education?**
In the 10 year follow-up conference on patients in health professional education, sessions focussed on how far the community has come and where it is going with regard to embedding the patient voice in health professional education. Stephanie Mowat attended and presented a poster: Patient Engagement in the Continuing Professional Development of Family Physicians, Stephanie Mowat and Jeffrey Sisler.

**Family Medicine Forum (FMF) “Celebrating 15 Years”**
This was the first year that the Education and Research (preconference) days were combined. A good combination of practical and thought-provoking workshops engaged participants. Anita Ens attended.

**International Conference on Residency Education (ICRE)**
The focus of the 2015 ICRE was Residency Rediscovered: Transforming Training for Modern Care, incorporating the launch of CanMEDS 2015. Joanne Hamilton, Stephanie Mowat, and Stephanie Giberson-Kirby attended this conference.

- Congratulations, Dr. Eleanor MacDougall, for having your presentation selected as the best paper in the top five What Works papers session at ICRE 2015! Your work in this area has not only demonstrated an innovative means of teaching and assessing difficult intrinsic roles, but has also changed provincial legislation. Congratulations, again!
- An integrated approach to teaching and assessing the health advocate and collaborator roles, A. Chiu, K. Gripp, F. Kojori, E. MacDougall, University of Manitoba, Manitoba Clinic, Winnipeg, Manitoba
Research Highlights by Stephanie Mowat

Construct validity of a 3D printed temporal bone educational tool
Jordan Hochman and his team have partnered with Stephanie Mowat to test the construct validity of a 3D printed model of a temporal bone as an educational tool. This high fidelity tool is intended to be used by residents to practice surgical technique in conducting a temporal bone dissection. Otolaryngology residents from across the country have tested the tool and data is now being analyzed to determine the construct validity, determining the relationship between dissection scores and the educational level and surgical experience of residents.

Retention of a ten-year cohort of internationally-trained family physicians licensed to practice in Manitoba
Stephanie Mowat, Jeff Sisler, and Martina Reslerova examined the retention of a cohort of international medical graduates (IMGs) trained and assessed by the University of Manitoba IMG programs over a ten-year period (2002-2012), looking at both retention in the province as a whole and in rural areas where physician shortages are a chronic issue. The study has been completed and a report is being submitted for publication. Future work will focus on the experiences of these IMGs as they embark on practice in Manitoba.

Practice patterns of Manitoba physician assistants
As a means of better understanding the current practice patterns of physician assistants (PAs) in Manitoba, Ian Jones, Stephanie Mowat, Heather Long, and Joanne Hamilton initiated an exploratory study to track University of Manitoba PA graduates as they enter the workplace. Data collection for the 2014 graduating class is now complete and we have begun to track the 2015 graduating class. Our preliminary findings reveal where our graduates are working, the tasks they are performing, and their level of preparedness as the entered the workplace. This data will be helpful in future curriculum development and evaluation. Preliminary results will be presented at the upcoming Canadian Conference on Medical Education in Montreal, April 2016.

Upcoming Conferences

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<tr>
<td>Mar 17-19</td>
<td>World Congress on Continuing Professional Development. Advancing Learning and Care in the Health Professions</td>
<td>San Diego, CA.</td>
<td><a href="http://www.worldcongresscpd.org/">http://www.worldcongresscpd.org/</a></td>
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<td>Apr 8-9</td>
<td>Northern Constellations Annual Faculty Development Conference.</td>
<td>Northern Ontario School of Medicine. Thunder Bay, ON.</td>
<td><a href="http://www.nosm.ca/northernconstellations2016/">http://www.nosm.ca/northernconstellations2016/</a></td>
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Visit our web page http://umanitoba.ca/faculties/medicine/education/ed_dev/ for full details on all Medical Education Events.
# Upcoming Events in Faculty Development

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<th>Date</th>
<th>Event Description</th>
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<tr>
<td>Feb 25 &amp; Mar 10</td>
<td>Conflict Management for Team Situations: Teaching Strategies and Practice (2-part)</td>
<td>12:00-2:00</td>
<td>405 Brodie Centre</td>
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<td>Mar 9, Mar 23</td>
<td>UM Learn Series: Communication Tools Course Management</td>
<td>12:00-1:30</td>
<td>Neil John Maclean Health Sciences Library</td>
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<td>12:00-1:30</td>
<td>231 Paterson Lab</td>
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<td>Mar 9, Apr 6, May 4, &amp; June 8</td>
<td>Narrative Medicine Workshop Series (4-part)</td>
<td>3:30-5:30</td>
<td>PZ269 PsychHealth Centre</td>
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<td>Mar 30, Apr 13, May 18</td>
<td>Writing for Your Professional Life Series (3-part)</td>
<td>12:00-2:00</td>
<td>T157 Basic Science Building</td>
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<td>Mar 22</td>
<td>What’s Your Point? The Art and Science of Powerful Academic Visuals</td>
<td>12:30-2:00</td>
<td>S200 Medical Services Building</td>
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<td>Apr 28</td>
<td>A “Sweet Approach” to Understanding Basic Principles of Educational Measurement</td>
<td>12:00-3:00</td>
<td>A474 Chown</td>
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For further details please see https://events.cpdumanitoba.ca/searchevent/event_search/12. Contact Karen DePape at (204) 272-3102 or karen.depape@umanitoba.ca for registration assistance.

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