

# Adaptive family physicians

## Is attention to procedural skills a key?

Cheri Bethune MD MCISc CCFP FCFP Wendy Graham MD CCFP FCFP FRRMS Thomas Heeley MASP

Family medicine is facing fundamental challenges as a specialty. These challenges include external forces such as regulatory authorities challenging our competence to practise in rural emergency departments,<sup>1</sup> internal forces such as increasing specialization (and pathways to such) within the College of Family Physicians of Canada (CFPC), and pressure from other medical organizations such as the Society of Rural Physicians of Canada<sup>2,3</sup> to respond to the growing dilemma of rural and remote work force challenges that demand attention to the need for generalism in the Canadian health care system. Family medicine has grown as a specialty, but along the way we might have neglected the roots of our discipline—generalism and adaptability.

### Generalism: the heart of family medicine

Generalism is at the heart of what it means to be a family physician. Ian McWhinney has said, “If we [family physicians] are to fill our place, it is crucial that our commitment be unconditional; patients should feel confident that they will never be told ‘This is not my field.’”<sup>4</sup> Then he went further:

Family physicians commit to work with any patient with any problem to the limits of their competence not only throughout the duration of a particular illness, but in between the illness episodes. A continuous therapeutic relationship of this nature is unique to family medicine.<sup>4</sup>

These quotes capture the spirit of our argument. We believe that recapturing the procedural capability of family physicians will catalyze and revitalize generalism within our discipline. Attention to this professional capacity within our training programs will assure the public and other stakeholders that family physicians are the most capable and adaptive physicians in the Canadian health care system.<sup>5</sup>

### Decline of generalism and adaptive expertise

For the past 30 years the focus of our discipline has been on the unique aspects of family medicine that emphasize our relationships with patients. Our discipline has grown immensely by articulating, valuing, teaching, and assessing the patient-centred clinical method as the defining feature of family medicine.<sup>6</sup> The CFPC Triple C curriculum launched a clear direction with a focus on continuity, comprehensiveness, and patient centredness.<sup>7</sup> The evaluation objectives identify 6 skill dimensions, one of

which is procedure skills. This list includes 65 core procedures and 15 advanced procedures.<sup>8</sup> Other member interest groups within the CFPC (eg, maternity care, rural and remote care) have made additional recommendations around the core procedural competencies in those areas of family medicine. It is really not possible to assess a learner’s competence in each of those procedures. As an aid to the approach to the teaching, learning, and assessment of procedure skills in the workplace the CFPC has published the key features of procedure skills.<sup>8,9</sup> The Patient’s Medical Home echoes the mantra that citizens need, want, and deserve a home where most of their health care needs can be met.<sup>10</sup> Marie-Dominique Beaulieu has described family medicine as being “about relationships,” but further elaborates that “scope of practice that builds the relationship .... This is something that is profound about our identity.”<sup>11</sup>

As the focus on creating, building, and nurturing relationships with our patients, their families, and their communities emerged in our discipline, the spotlight shifted away from the historical roots of generalism and the procedural skills that help define the broad capabilities of true generalists.<sup>12,13</sup> At the same time, societal forces and changes in health care saw many family physicians wrestled out of or retreating from hospitals—particularly in urban areas where specialists and subspecialists dominate the landscape. In rural settings the challenge is more evident as hospitals grapple with silos of family doctors working exclusively in community-based practices, emergency departments, or as hospitalists. This compartmentalization or division of practice has led to the risks of decline in our procedural capability as we have fewer opportunities to maintain those broad skills.<sup>14</sup> To further complicate the situation, training programs that were centred predominantly in family medicine (and therefore located outside of traditional hospitals) lost some of their established training grounds for gaining procedural competence. The consequences are felt in our discipline as we struggle to ensure procedural learning opportunities for our learners in our very short 2-year training programs. Can we confidently affirm that graduates of our family medicine training programs are procedurally competent to begin practice anywhere in Canada?

This issue is not unique to Canadian medical education nor to family medicine.<sup>15</sup> Recent conversations with program and assessment directors across Canada prompted a CFPC-sponsored procedural skills think tank. These discussions revealed a lack of confidence that all trainees

get sufficient opportunity, observation, and assessment of their procedure skills (personal communication with Dr Eric Wong, CFPC Director of Assessment, June 2018). We also lack evidence about our graduates' procedural competence. Now, with the shift to competency-based medical education, we have the opportunity to gather reliable and sufficient evidence around learner competence. We can use this evidence to inform and improve our residency training for entry into practice and build foundational approaches to lifelong adaptive practice.

### What are the benefits of procedural learning?

Rather than returning to the adage “see one, do one, teach one,” procedural learning challenges us to modify our approach to training to explore how we can incorporate educational theory and principles to help inform our approach to procedural learning.<sup>16</sup> This means our approach to procedures is more structured and deliberate with educational concepts of conceptualization, visualization, deconstruction, verbalization, and guided practice. These fundamentals can be applied in vivo when trainees are invited first to watch, then to participate, and then to independently demonstrate a procedure. Opportunity for feedback is inherent in these steps as learners become more competent and capable to complete procedures and apply them in different situations, first under watchful eyes and then with gradual withdrawal of supervision. Learners are watched, coached, and granted greater autonomy and deemed competent for that procedure when they are competent. This demands workplace-based learning and assessment by capable faculty with adequate time. This also implies that each learner will have adequate exposure and experience in a very short 2-year program. One could argue that attention to procedural skills will compete with other compelling curricular needs. Rather, the idea here is to create a renewed focus on the potential of procedural skills as a learning strategy that will help learners to better meet the goals of adaptive expertise.<sup>17</sup>


### How will attention to procedural competence reinvigorate generalism?

Procedural competence is a building block for adaptive expertise,<sup>17</sup> and has been shown to foster discovery and new knowledge.<sup>17–21</sup> There is also mounting evidence that procedural skills enhance physician self-efficacy, adaptiveness (new solutions to new problems), capacity to learn, and clinical courage in the face of uncertainty or limited resources.<sup>22,23</sup> With these learning skills, family physicians can gain and maintain a broad scope of practice. The CFPC has always asserted that Canadian family physicians graduate equipped to begin practice anywhere in Canada, and the broad skill set afforded by procedural competence is a means to this end.<sup>24</sup>

Physicians' capacity to transfer skills to unpredictable or novel situations can be enhanced through attention to careful instructional design that builds on previous

knowledge and attends to deep learning, struggle, coached discovery, and maximum variation in contexts or presentation.<sup>22</sup> These components of procedural learning lead to preparation for future learning, which endows learners with strategies for more effective learning (self-regulation), enhanced transfer of skills to novel situations, and capacity for innovation and adaptability.<sup>18,22,23</sup> In this way, invigorated procedural learning could increase attention to practices and communities that are difficult to serve, enhancing the capacity of family medicine to respond to equity and social justice issues in health care (particularly among marginalized populations) while also cultivating an adaptive and innovative skill set in family physicians to address patients' needs closer to home (eg, medical assistance in dying, point-of-care ultrasound, wound prevention and care). This is, in essence, generalism.

### Conclusion

The time has never been better, thanks to the shift to competency-based education, for the CFPC to reinvest in generalist family physicians who are community-adaptive and uniquely capable of working effectively in many health care settings. The Family Medicine Professional Profile, launched by the CFPC, articulates the educational outcomes of our training programs to enhance Canadian primary care.<sup>25</sup> If we cannot—or will not—do this, there are others who are ready, waiting in the wings.<sup>2</sup> A focus on procedural competence offers promise for more complete family physicians—adaptive physicians who meet the needs of their communities with competence, confidence, and clinical courage. If we fail to meet this challenge, what will become of family physicians as the cornerstone of the Canadian health care system? 

**Dr Bethune** is Clinical Professor of Family Medicine at Memorial University of Newfoundland. **Dr Graham** is a family physician in Port aux Basques, NL, and is Associate Professor of Family Medicine at Memorial University. **Mr Heeley** was a research assistant in the Faculty of Medicine at Memorial University at the time this article was written.

#### Competing interests

**Dr Bethune** is a clinician-educator with the College of Family Physicians of Canada.

#### Correspondence

**Dr Cheri Bethune**; e-mail [cbethune@mun.ca](mailto:cbethune@mun.ca)

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This article has been peer reviewed.

*Can Fam Physician* 2021;67:239-41. DOI: 10.46747/cfp.6704239

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