The lost competency

CanMEDS–Family Medicine and prognosis

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In the early days of medicine, the lack of effective diagnostic or therapeutic methods made prognosis the most important physician competency, and of utmost importance to relay to a patient. Hippocrates (460 BC to 370 BC) advanced the domain of prognosis by developing a framework that considered the combination of symptoms and clinical signs to predict patient outcomes.[1] He also described prognosis as a 2-dimensional construct: *quoad vitam* (predictions about survival and life expectancy) and *quoad sanationem* (predictions about healing and restoration of function).[1]

Building on these Hippocratic principles, Dr Nicholas A. Christakis posited that prognosis comprises 2 basic components—foreseeing (computing and foretelling the prognosis) and foretelling (disclosing and communicating the prognosis).[2] As such, prognosis can be viewed as a science (foreseeing) and an art (foretelling). Prognosis can be effectively communicated to patients using these components. However, advances in diagnostic and therapeutic methods throughout the past century have relegated this once-valued competency to an almost negligible role. Armed with new technologies in diagnostics and knowledge in therapeutics, physicians today are trained to have a single objective: to cure. With such an ambitious objective, the consideration of prognosis might be perceived by physicians as a defeatist mindset. This has led to a substantial deficiency in opportunities to develop prognostic skills within medical curricula.

The implications of this are clear. It might explain the tendency of physicians to excessively offer late-stage intervention at the end of life rather than palliation.[3] There is also evidence to show that patients who are unaware of their prognoses will have decisions made for them that are more paternalistically driven by physicians and often associated with vested interests, rather than being truly patient centred.[2] Both of these scenarios deny the patient the autonomy to make the decision that is best for him or her at the end of life. With this in mind, prognosis should be seen as an ethical imperative, as it truly underpins comprehensive informed consent for decision making at the end of life.

Prognosis is absent from competency frameworks

Competency frameworks, which are important drivers for developing medical curricula, are devoid of topics related to prognosis. In Canada, the competency-based approach to medical education is largely guided by the CanMEDS framework, created by the Royal College of Physicians and Surgeons of Canada (RCPSC).[3] The CanMEDS framework has been incorporated in medical undergraduate and postgraduate programs throughout Canada.[3] While CanMEDS was initially designed for the specialty and subspecialty programs overseen by the RCPSC, the College of Family Physicians of Canada created its own rendition in 2009 using the same criteria as they relate to family medicine, aptly named *CanMEDS–Family Medicine* (CanMEDS-FM).[4]

Unfortunately, what these frameworks have in common is the failure to adequately address or even mention prognosis as a relevant competency. A previous content analysis of the CanMEDS documents created by the RCPSC showed that only 26 of 66 specialties and subspecialties contained at least 1 citation of the key words *prognosis* or *prognostic*.[3] The CanMEDS-FM framework does not fare any better. This was evident after we performed a quantitative content analysis on the CanMEDS-FM document.[4] We used Foxit Reader 7.0, proprietary PDF viewing software that can locate key words in text-based documents. Key words searched for on September 1, 2014, in the CanMEDS-FM document included *prognosis*, *prognostic*, *prognosticate*, and *prognostication*. The result was in keeping with the previous study—these key words were absent from the document.

The lack of attention to prognosis in the curriculum is consistent with published data reporting that 90% of physicians are "reluctant to make predictions" about a patient's illness.[2] In addition, prognosis is only discussed with patients or substitute decision makers 15% of the time, even when physicians are provided with objective prognostic estimates.[5] Hence, validated prognostic tools, such as the Palliative Performance Scale, are of limited utility to physicians if none of the information they provide is conveyed to the patients. The Palliative Performance Scale score is currently the most robust predictive factor in *quoad vitam* for patients with incurable disease, as well as the most robust predictive factor in *quoad sanationem* in terms of complete healing of pressure ulcers,[6,7] so the lack of its use is unfortunate.

Given that CanMEDS is the official guide for competency-based medical education in Canada, these

Cet article se trouve aussi en français à la **page 748**.

data should not come as a surprise. If CanMEDS-FM is a tool to guide medical curricula and there is not a single mention of prognosis, how are clinician-educators expected to teach prognosis to future family physicians?

Prognosis and palliative care

Prognosis should become a pressing concern for family physicians, who carry most of the burden of palliative care services in Canada. Currently, 16% to 30% of Canadians who require palliative care are managed by palliative care specialist teams with palliative care consultants; the rest are managed by their family physicians.[8]

This burden for family physicians is only expected to increase in the future. Seniors are the fastest-growing age group and could make up 25% of the population by 2036.[9] Chronic diseases already cause 70% of deaths, and prevalence rates are expected to increase.[9] A recent Canada-wide town hall dialogue conducted by the Canadian Medical Association regarding end-of-life care highlighted many of the public's concerns. Not surprisingly, one of the main issues was that family physicians were often unprepared to initiate discussion around advance care planning and end-of-life care.[10]

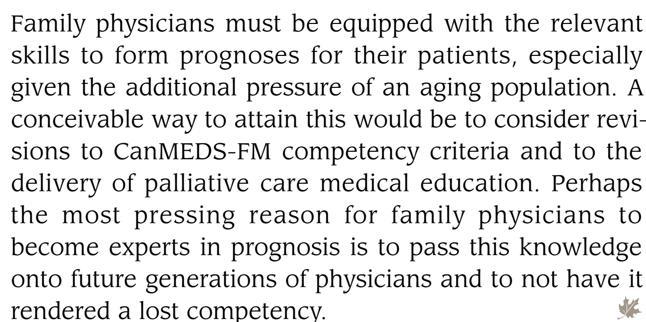
This raises the following question: How can the relative neglect of prognosis that resulted from a century's worth of medical progress be mitigated moving forward? Of note, one of the main culprits of the death-denying culture within medicine is the deficiency of prognosis in medical education.[11]

How to improve

The first measure that the College of Family Physicians of Canada can implement is to recognize the importance of prognosis. Providing patients with a prognosis can empower them to make decisions regarding their care at the end of life. This would ideally be addressed at the grass-roots level in medical education. The authors of the next revision of CanMEDS-FM could acknowledge prognosis as a part of certain core competencies, which could help establish the foundation for teaching prognostic skills. Specifically, the element of foreseeing might be incorporated into the scholar role by articulating the need for objective computation of prognostic estimates.[3] The art and skillful disclosure of prognosis to the patient could be tied in with the communicator role, which also promotes the foretelling component of prognosis.[3]

However, even if this groundwork is laid out in a revised CanMEDS-FM framework, there are other ways to improve competency in prognosis. In particular, exposure to palliative care is visibly lacking in medical education. At present, 10 of 17 Canadian medical schools offer less than 10 hours of palliative care training.[10] In addition, a quick overview of the curricula of family medicine residency programs reveals that not all of them have a compulsory palliative care rotation. Mandatory palliative care rotations are offered inconsistently among different campuses of the same residency programs. Surely this variability in the education of family medicine residents will lead to a proportion of family physicians being less capable of providing palliative care, which would entail deficiencies in prognosis as well. Making palliative care a mandatory rotation for family medicine residents in Canada is a feasible step to increase exposure to a patient population that they will undoubtedly care for in the future.

Conclusion



Family physicians must be equipped with the relevant skills to form prognoses for their patients, especially given the additional pressure of an aging population. A conceivable way to attain this would be to consider revisions to CanMEDS-FM competency criteria and to the delivery of palliative care medical education. Perhaps the most pressing reason for family physicians to become experts in prognosis is to pass this knowledge onto future generations of physicians and to not have it rendered a lost competency.

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Competing interests
None declared

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