When were clinicians ever not competent?

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Competence based education (CBE) has become increasingly popular as of late among health professions training programs. Models of CBE have been developed and implemented by major licensing bodies and professional Colleges (and affiliated education programs), such as the Royal College of Physicians and Surgeons of Canada (RCPSC) and the Association of American Medical Colleges (AAMC). In this month's issue of the*Journal of Evaluation in Clinical Practice* , several studies describe an experience with designing and implementing a CBE model [1-6]. On the surface, the desire to ensure that health professions trainees are competent is commendable – just as it is likely few would argue that the care they receive should not be evidence based, I suspect that few (if any) would be comfortable with the clinician prescribing or managing said care being less than competent. However, the notion of a need for a CBE model might suggest that there was some issue with competence in the training of past clinicians that needed remedy, i.e. there is a lack of competence among some clinicians entering their profession that is in part a product of their training.

When considering public perception of clinician competence, that of physicians in particular, history is not kind. Over the past two millennia, medicine got it wrong more often than right – humoral theory, bloodletting, miasma and contagion were all highly subscribed among the healthcare community but are now relics of a bygone era. In fact, the poor track record of medicine was the basis for a need for evidence based medicine (EBM). Practitioners of healthcare were often portrayed as ineffective, as providing little more than palliative support while nature took its course for better or worse, or even crueler, as charlatans peddling nostrums [7]. Artists were no kinder to clinicians. For example, Shaw's *The Doctors Dilemma* portrays a group of physicians as self-absorbed, greedy, overly confident in their unproven (and presumably, ineffective) pet "cures", with only the poorest among them as having any sense of humility and patient centred focus in his practice [8]. It seems that only within the last century did clinicians develop a good public reputation, much of which might be more appropriately attributed to improvements in hygiene practices/standards of living at a societal level (e.g. the McKeown Thesis[9]) or likewise to medical science and the discovery of "silver bullet" cures (e.g. antibiotics, insulin, etc.) rather than to a change in how clinicians approached the learning of their craft and care of their patients. However, a historical lack of curative success and a poor reputation does not entail a lack of competence. A clinician working in Europe during the first millennium of the Common Era would have been considered competent provided he (or much rarer, she) mastered humoralism according to the teachings of Galen. Is it possible that future generations will look at the clinicians of today – even those who train under CBE – in the same light as we do clinicians of the past? Should a failure of today's medicine in the eyes of future generations invalidate the competence of contemporary clinicians? I suppose the impact of the answer to such questions on the issue of competence hinges on how we define (and measure) competence.

What then makes a clinician competent? The obvious answer is technical knowledge in the clinician's given area. By that, I assume that for a clinician to be considered competent, she requires a minimum understanding of the content and technique of her given profession contemporaneous with the period of practice.11A minimum understanding of content and technique is required to be accepted into the profession, but it is not the desirable end. Clinicians are expected to participate in a model of lifelong learning with a goal of mastery

over that content and technique. However, knowledge might be considered the minimum requirement. Several frameworks of competence outline additional requirements. For example, the "CanMEDS" framework, issued by the RCPSC, identifies "the abilities physicians require to effectively meet the health care needs of the people they serve"22http://www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e, accessed on June 8, 2020., which includes the roles of the physician as medical expert, communicator, collaborator, leader, health advocate, scholar, and professional. The criteria by which these "roles" were selected (and other "roles" excluded), including the theoretical and/or empirical justification for their inclusion as part of "competence" is not clear to me, nor is it entirely clear if available metrics are sufficient in demonstrating that the roles have in fact been achieved by the trainee or how one operationalizes those roles in practice. Are clinicians who lack ability in any of these "roles" incompetent? Does meeting all of them according to some threshold ensure competence? As health professions are typically self-regulating, it is up to the governing bodies of each profession to decide, which might suggest that competence is a product of the times rather than akin to a "natural kind"33If it is the case that "competence" in medical practice, for example, is in fact a standard set by the profession (which I think most people would agree is the case), then judging the competence of past or future physicians by the current standard might be inappropriate. That raises issues about differing standards of competency for currently practicing physicians who trained at different times. In Canada, we are currently going through a transition whereby our training programs have two cohorts – one that is training under the previous "time based" model and the other under the current "competence by design" model. Is it the case that there is a relatively less (or no) guarantee that those training under the previous model are competent? The answer to that question might impact the extent to which we should have confidence in currently practicing clinicians, or at least relative to the next generation. Regardless, all practicing clinicians are accountable to a standard set by their respective professional Colleges, which likely makes the issue moot once trainees enter independent practice..

It would be silly to suggest that clinicians who trained under a pre-CBE model are not competent any more than it is to suggest that clinical decisions prior to the adoption of the EBM movement were not based on evidence. Certainly, we have no shortage of competent clinicians practicing today. Those clinicians were accepted into the profession (and maintain standing) on some assessment of competence. However, institutions may have good reason for implementing CBE beyond simple competence concerns. For example, CBE programs can facilitate the development of an infrastructure of accountability that extends beyond activities of remediation or accelerating advancement to independent practice. That infrastructure can be leveraged to ensure transparency in assessment and advancement, identify individualized training needs, etc. that can be important components of ensuring and achieving equitable access to health professions, particularly for traditionally underrepresented populations.44It is important to note that while CBE might drive the development of such an infrastructure, a CBE training model is not necessary to do so. Certainly, institutions can and should be striving to improve on accountability, equitable access, etc., irrespective of a CBE model.

On the other hand, we have no shortage of experience with poor decisions, suboptimal patient outcomes, iatrogenic effects, etc., that often raise concern about clinician ability (or competence). Poor outcomes, or at least those not aligned with the expectations of the public (irrespective of if those expectations are realistic) could be construed by some as a result of incompetence. Likewise, inequitable access (within or between communities) to appropriate expertise might raise concern of a lack of professional competence (i.e. the profession is not meeting the needs of the population inclusively). One way such perceptions by the public can be problematic for healthcare professions is that may erode the powerful position of institutionalized healthcare (and its providers) that exists in many societies. One could argue that EBM had a powerful effect on securing the public's trust in healthcare by leveraging public perception of science as apolitical, objective, etc. Does CBE play a similar role by highlighting high professional standards only achievable by those "worthy" of the profession, who were rigorously assessed using quantifiable (often presented as "objective") metrics, irrespective of whether that results in better care for patients? If so, then CBE may constitute a political move to retain or grow power rather than a remedial exercise to ensure no one joins the profession without having the skills necessary to provide appropriate care (by some defined public standard) for those

seeking service. In other words, one might argue that CBE is not a response to a concern about competence – it is a response to a potential loss of standing relative to alternative modes of care or other social services. I am not suggesting that is necessarily the case, as I know several health professions educators who are honest in their pursuit to train clinicians who will excel in serving and providing care for the community. That seems to be the rule rather than the exception. However, the goals of the educators may not always tightly align with the goals of the institution, which may also be responsible for securing funding, maintaining status, public accountability, etc.

Models of health professions training that focus on assessing and achieving defined competencies rather than hoping that important abilities are acquired over a defined time period (that also relies on the reliability and validity of licensing exams) are admirable. It is difficult to argue that achieving competence should not be the explicit focus of training. Perhaps one of the greatest benefits of CBE is that it puts competence to the forefront, just as EBM did for evidence. However, we must be vigilant to ensure that "competence" stays more than a buzzword or a tool of branding. Terms lacking substance can have a negative effect on patient care – too often the terms "patient centred" and "evidence based", for example, are invoked as placeholders for quality patient care without any evidence to support that whatever intervention or program those terms are describing has any positive impact beyond rhetorical. We have not entered into an era of clinician competence simply because CBE has been implemented. Rather, what I see as the greatest benefit of CBE is the opportunity for improving and ensuring accountability.

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