



Valuing virtue in medicine: A closer look at CanMEDS

Valoriser la vertu en médecine : un examen plus approfondi de CanMEDS

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Volume 16, numéro 1, 2025

URI : <https://id.erudit.org/iderudit/1117319ar>

DOI : <https://doi.org/10.36834/cmej.79246>

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Éditeur(s)

Canadian Medical Education Journal

ISSN

1923-1202 (numérique)

[Découvrir la revue](#)

Citer ce document

Jayasinghe, S. (2025). Valuing virtue in medicine: A closer look at CanMEDS. *Canadian Medical Education Journal / Revue canadienne de l'éducation médicale*, 16(1), 106–114. <https://doi.org/10.36834/cmej.79246>

Résumé de l'article

Le cadre CanMEDS-2015 décrit sept rôles clés attendus des médecins en exercice : communicateur, collaborateur, gestionnaire, promoteur de la santé, érudit et professionnel. Des critiques ont exprimé leurs préoccupations quant à l'omission d'un huitième rôle proposé, « le médecin en tant que personne », qui concerne les qualités humaines et la résilience personnelle du médecin. Après une analyse plus approfondie, le cadre inclut plusieurs attributs vertueux dans les rôles du médecin, en tant que professionnel et communicateur. Toutefois, il n'aborde pas suffisamment certaines vertus, telles que la créativité, l'amour et la spiritualité. S'appuyant sur la littérature en psychologie positive, l'auteur propose un ensemble supplémentaire de vertus classées en six catégories : sagesse, courage, humanité, justice, tempérance et transcendance. Sur cette base, l'auteur dresse une liste de vertus et de concepts pertinents pour un « rôle vertueux » des médecins. Le cadre CanMEDS devrait intégrer ces vertus en tant que rôle fondamental ou primordial et s'inspirer de l'éthique de la vertu issue des traditions religieuses et philosophiques. Cette approche est opportune, compte tenu des efforts actuels de mise à jour et de développement de CanMEDS2025. En adoptant un rôle vertueux au sein du cadre CanMEDS, nous visons à former des médecins techniquement compétents et profondément humains, répondant ainsi aux attentes de la société en faveur de professionnels de santé compatissants et vertueux.

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Valuing virtue in medicine: a closer look at CanMEDS Valoriser la vertu en médecine : un examen plus approfondi de CanMEDS

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Published ahead of issue: Nov 5, 2024; published: Feb 28, 2025. CMEJ 2025, 16(1) Available at <https://doi.org/10.36834/cmej.79246>

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Abstract

The CanMEDS-2015 Framework outlines seven key roles expected of practicing physicians: communicator, collaborator, manager, health advocate, scholar, and professional. Critics have expressed concern about the omission of a proposed eighth role, 'Physician as Person' relevant to humane qualities and personal resilience of the physician. Upon further analyses, the Framework has included several virtuous attributes in the roles of a physician as professional and communicator. However, it addresses certain virtues like creativity, love, and spirituality inadequately. Drawing on literature from Positive Psychology, the author categorizes and additional set of virtues into six classes: wisdom, courage, humanity, justice, temperance, and transcendence. Based on these, the author lists virtues and concepts relevant to a 'Virtuous Role' for physicians. The CanMEDS Framework should integrate these virtues as a foundational or overarching role and draw from Virtue Ethics in religious and philosophical traditions. This approach is timely, giving ongoing efforts to update and develop CanMEDS2025. By adopting a Virtuous Role within CanMEDS, we aim to train physicians who are technically skilled and deeply humane, meeting society's expectations for compassionate and virtuous healthcare professionals

Résumé

Le cadre CanMEDS-2015 décrit sept rôles clés attendus des médecins en exercice : communicateur, collaborateur, gestionnaire, promoteur de la santé, érudit et professionnel. Des critiques ont exprimé leurs préoccupations quant à l'omission d'un huitième rôle proposé, « le médecin en tant que personne », qui concerne les qualités humaines et la résilience personnelle du médecin. Après une analyse plus approfondie, le cadre inclut plusieurs attributs vertueux dans les rôles du médecin, en tant que professionnel et communicateur. Toutefois, il n'aborde pas suffisamment certaines vertus, telles que la créativité, l'amour et la spiritualité. S'appuyant sur la littérature en psychologie positive, l'auteur propose un ensemble supplémentaire de vertus classées en six catégories : sagesse, courage, humanité, justice, tempérance et transcendance. Sur cette base, l'auteur dresse une liste de vertus et de concepts pertinents pour un « rôle vertueux » des médecins. Le cadre CanMEDS devrait intégrer ces vertus en tant que rôle fondamental ou primordial et s'inspirer de l'éthique de la vertu issu des traditions religieuses et philosophiques. Cette approche est opportune, compte tenu des efforts actuels de mise à jour et de développement de CanMEDS2025. En adoptant un rôle vertueux au sein du cadre CanMEDS, nous visons à former des médecins techniquement compétents et profondément humains, répondant ainsi aux attentes de la société en faveur de professionnels de santé compatissants et vertueux.

Introduction

The international academic medicine community faces the major challenge of developing strategies to rationalize and optimize physicians' training, ensuring practitioners are equipped to serve the public interest effectively. The Royal College of Physicians and Surgeons of Canada has gained global recognition for the CanMEDS (Canadian Medical

Education Directives for Specialists) framework that "identifies and describes the abilities physicians require to effectively meet the health care needs of the people they serve."¹

CanMEDS 2015 presents a medical expert with an integrated physician identity with seven interacting thematic roles expected of practicing physicians: Communicator, Collaborator, Manager, Health Advocate,

Scholar, and Professional. While developing the CanMEDS framework, the resource persons proposed an eighth role termed ‘Physician as Person’ to highlight the individual qualities of physicians, focusing on personal growth, resilience, managing work-life balance, and developing or strengthening virtues.^{2,3} Though this role did not make it into the final version, two justifications still support strengthening of virtues in education and training: First, virtues serves as an overarching quality that supports the other roles of a physician. Second, public and professional demands increasingly call for patients to receive care from compassionate and empathic health professionals who demonstrate virtuous qualities.^{4,5} These expectations appear clearly in various documents released by globally recognized organizations such as the American Medical Association,⁶ the World Medical Association,⁷ and the World Health Organization.⁸ Additionally, several studies and systematic reviews have shown a worrying decline of empathy levels during physician training, which erodes the virtuous identity of the healthcare profession.⁹⁻¹³

Historical background: virtues in medical education

The discourse on cultivating virtues in modern medical education draws from deep historical roots, with significant connections to the Flexner Report of 1910 and the Hopkins Circle.¹⁴ The Flexner Report prompted curriculum reforms that prioritized research, the teaching of basic sciences, and a more scientific approach to medicine, responding to the inadequacies of the 19th-century apprenticeship models. The Hopkins Circle, a group of academics regularly convened to discuss the broader implications of the report's recommendations, and their debates became pivotal. Notably figures like Sir William Osler (1849–1919) and Dr. Francis Peabody (1881–1927), expressed concerns that a research-based approach might negatively impact the doctor-patient relationship and humanistic medical practices.¹⁵⁻¹⁸ These discussions sparked a movement to humanize medicine leading to the emergence of medical humanities. Dr. Edmund Pellegrino (1920–2013), an American bioethicist and the first chairman of the Institute on Human Values in Medicine, played a pioneering role in introducing these concepts into healthcare settings and medical school curricula across the US. Pellegrino criticized the views of doctors as mere technicians serving science, advocating for a shift where science serves the needs of patients.¹⁹⁻²² His ideas laid the groundwork for modern trends like the biopsychosocial model, humanistic medicine, and person-centered medicine.^{23,24}

The previously omitted 8th CanMEDS role of ‘Physician as Person’ was intended to highlight the importance of work-life balance and strengthening humane qualities and virtues (i.e. the quality of being morally good).^{2,3} Additionally, physicians have shown a decline in compassion and empathy- values that regulatory authorities increasingly recognize as core to the profession.^{4,16,25,26} This devaluation of virtues in CanMEDS 2015, along with the relative lack of attention it has received generally, likely reflects a broader systemic bias. This prompted the author to examine the framework more closely and suggest ways to enhance the emphasis on virtues.

Identifying virtues in CanMEDS

I propose a novel approach to recognize virtues relevant to physicians: First, by carefully examining the seven roles in the CanMEDS 2015 framework, I have identified existing elements of virtue in the Key Concepts.^{1,2,3,27} Second, the author complements this list by drawing on virtues described in the literature on Positive Psychology.²⁸ The field categorizes virtues into six classes: wisdom, courage, humanity, justice, temperance, and transcendence, encompassing a total of 24 individual virtues

These virtues emerged from extensive discussions and the integration of diverse streams of knowledge, philosophies, and religious perspectives.²⁸

1. **Wisdom:** Creativity, curiosity, open-mindedness, love of learning, perspective
2. **Courage:** Honesty, bravery, persistence, zest
3. **Humanity:** Kindness, love, social intelligence
4. **Justice:** Fairness, leadership, teamwork
5. **Temperance:** Forgiveness, modesty, prudence, self-regulation
6. **Transcendence:** Appreciation of beauty, gratitude, hope, humor spirituality

Appendix A summarizes the Key Concepts (column 2) of the seven roles in the CanMEDS framework that exhibited virtuous characteristics. The corresponding Key Competencies and Enabling Competencies are given in columns 3 and 4, respectively.

These are aligned to the 24 virtues described in Positive Psychology and given in Column 5: ‘Character Strengths and Universal Virtues from Positive Psychology.’²⁸

This process demonstrated that virtues are present within all seven CanMEDS roles, predominantly under 'Professionalism. These include a commitment to ongoing professional development, promotion of the public good, adherence to ethics (i.e. moral principles that govern a person's behavior), and values (i.e. guidelines that assist a person in deciding between right and wrong). Key latter includes integrity (i.e. quality of adhering to moral principles), honesty (i.e. being truthful and transparent), altruism (i.e. selfless concern for the wellbeing of others), humility, respect for diversity, promote equity, and transparency with respect to potential conflicts of interest as well as taking responsibility for one's own health and well-being and that of colleagues.^{1,29} However, CanMEDS remains vague on certain virtues from Positive Psychology: Wisdom (creativity, curiosity, open-mindedness); Courage (zest); Humanity (love); Transcendence (appreciation of beauty, gratitude, hope, humor, religiousness).

Modifying the CanMEDS framework to include a virtuous role

Virtues are widely included and implicit in CanMEDS 2015. I propose that these elements be made more explicit and enriched with concepts from positive Psychology to develop a more overarching Virtuous Role for physicians.

Figure 1 shows the synthesis of these concepts, placing emphasis on nurturing both personality traits and the intrinsic attributes of the individual.

The format of the CanMEDS framework requires a brief description of each role and the one from Virtues is proposed below:

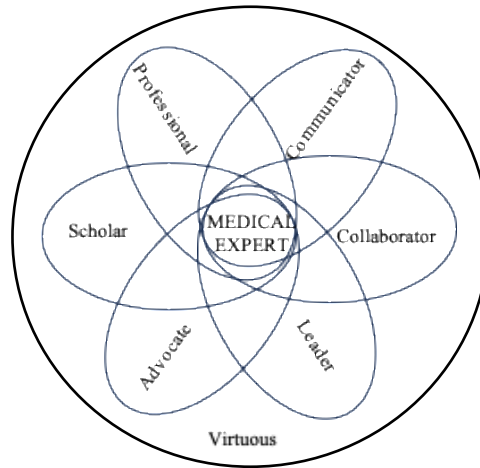


Figure 1. Modified version of CanMEDS showing an overarching virtuous role

Description of virtue

As physicians, we engage in constant interaction with a diverse array of individuals, communities, and social groups. Our professional practice, as integral members of the caring profession must be grounded in humane attributes. These include altruism compassion (a strong feeling of concern for the suffering of others and a desire to help), empathy (ability of understand and share the feelings of another), love, and respect for others, alongside adherence to high ethical standards. Virtuous physician has the following traits that prompt individuals to think, feel, and act in ways that benefit themselves and/or others: Embraces values such as integrity, honesty, humility (lack of pride), respect for diversity, creativity having original ideas), curiosity (information seeking beyond what is needed), open-mindedness (willingness to consider new ideas), zest (a positive attitude), appreciation of beauty, gratitude (the quality of being thankful), hope, humor, and religiousness (strong belief in a particular religion).^{3,30}

Aligning with the CanMEDS Framework I propose an overarching Virtuous Role of a Physician as the in the 8th role and lists the Key Concept and Key Competencies as shown in Table 1.

Table 1. The representation of roles as a Virtuous Physician

| Key Concepts and Competencies of a Virtuous Physician modified from CanMEDS 2015 | | | |
|--|---|--|--|
| Role: Virtuous Physician | Key Concepts | Key Competencies (corresponding to Key Concepts) | Enabling Competencies (in relation to Key Competencies) |
| Commitment to patients | Altruistic behaviors | Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards | Exhibit appropriate professional behaviours and relationships in all aspects of practice, demonstrating altruism, compassion, insight, integrity and honesty, integrity, moral and ethical behavior, respect for diversity |
| | Compassionate care | | |
| | Insight or self-awareness | | |
| | Integrity and honesty | | |
| | Moral and ethical behaviour | | |
| | Respect for diversity, and inclusivity | | |
| | Promote equity | | |
| Commitment to society | Societal expectations of physicians and the profession | Demonstrate a commitment to society by recognizing and responding to societal expectations in health care | Demonstrate accountability to patients, society, and the profession by responding to societal expectations of physicians and a commitment to patient safety and quality improvement |
| Commitment to the profession | Conflicts of interest | Demonstrate a commitment to the profession and patients by applying best practices and adhering to high ethical standards | Recognize and manage conflicts of interest |
| | Responsibility to the profession, including collegiality, and support | Demonstrate a commitment to society by recognizing and responding to societal expectations in health care | Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions Participate in peer assessment and standard-setting |
| Commitment to self | Altruism, compassion, empathy, capacity to love | Demonstrate a commitment to self by being virtuous, and responding appropriately to emotions and external situations, and appropriate to meet the needs of society, community, patient, and self | Recognize virtues and respond to emotions and external situations, and needs of society, community, patient, and self |
| | Respect of others and humility | | |
| | Integrity and honesty to self | | |
| | Creativity, curiosity, open-mindedness and zest | | |
| | Appreciation of beauty | | |
| | Gratitude | | |
| | Hope | | |
| | Humor | | |
| | Religiousness | | |
| | Capacity for introspection, self-regulation, and monitoring of one's thoughts, behaviours, and emotions | | |
| Mindfulness and reflective approach to practice | | | |

Discussion

The qualities listed as virtues form the foundation of humane conduct, essential for individuals as members of human society.^{31,32} I hope that the addition of a Virtuous Role for physicians will draw the attention of educators to address the decline in compassion and empathy among physicians.^{16,25} The goal is for the new version of CanMEDS to reverse the decline in humanistic medical practice, which has been partly attributed to the Flexner Report's emphasis on basic-science and a research-based approach to medical education.

My proposal is especially relevant to the on-going CanMEDS project to revise the current framework.³³ However, the current movement seems to be towards Physician Humanism rather than the development of a Virtuous Physician. Physician Humanism is defined as 'the concept of maintaining connection with an individual's personhood to support physicians in extending humanistic care to patients and in other relationships' While important this falls short of developing virtues, a virtuous role or achieving a virtuous life. All these are both goals and means to an end, as several philosophers and most religions have long emphasized.^{31,32,34} Aristotle's writings, particularly in "The Nicomachean Ethics," have been very influential in shaping virtue ethics. He identified several spheres of

common human experiences where people must make choices and act for themselves.³² These spheres, or the grounding experiences of living, each correspond to specific virtues. They include courage, moderation, justice, generosity, management of personal property in relation to hospitality (i.e., expansive hospitality), self-worth, mildness of temper (especially attitudes to loss), truthfulness, easy grace (i.e., sensitive and not rude), friendliness, attitude to the good and ill fortune of others, intellectual virtues such as perceptiveness and knowledge, and practical wisdom (i.e., planning one's life).

In contrast to Greek philosophers, religions take a more prescriptive approach to virtues. Buddhists propose an 'Eightfold Path' to achieve enlightenment (i.e., Nirvana) and give importance to right moral conduct, or 'sila', which includes right speech, right action, and right livelihood.^{35,36} Christianity combines three Theological Virtues—faith, hope, and love—with four Human or Cardinal Virtues: prudence, justice, fortitude, and temperance.²⁸ The Hindu historical text, the *Bhagavadgītā* is often interpreted as an exploration of, deontology and utilitarianism emphasizing virtues such as fearlessness, sincerity, non-violence, modesty, forgiveness, patience, and compassion.^{37,38,39} Ancient Ayurvedic also highlight the importance of empathy, viewing physicians as highly respected as members of a noble, sacred profession. As such, these virtues are expected to cultivate purity in mind, body, and speech.⁴⁰

While ancient philosophies emphasize the importance of virtue, the increasing role of Artificial Intelligence (AI) in healthcare poses new challenges. As AI takes over some responsibilities traditionally held by physicians, I expect significant implications for clinical practice.⁴¹ AI is anticipated to play a key role in clinical decision-making (i.e., as a clinical expert), knowledge management (i.e., as a scholar), automated electronic and robotic communications (i.e., as a communicator), and in financial and human resource management ((important aspects of a managerial role). However, patients still long for human-to-human interactions and the genuine expression of empathy and compassion. This underscores the need for practicing physicians to provide humane input, ensuring that virtuous qualities and compassionate care remains integral to healthcare, complementing the roles played by AI.

Adopting an overarching position on virtues has the advantage of prioritizing them as essential competencies for physicians. However, I recognize the risk that this

emphasis could lead to overly rigid interpretation, resembling a form of 'virtue religiousness'. Some virtues, such as the capacity for introspection, self-regulation, and the monitoring of one's thoughts, behaviors, and emotions, may not easily fit into a precisely measurable competency framework. Nonetheless, including these virtues in CanMEDS 2025 would reinforce the call for more virtuous physicians.

Engaging with societal views on virtues would be a valuable exercise. However, there should be mechanisms in place to address any misalignment between societal expectations and the core values of the profession. A similar tension can arise when navigating conflicts between values such as altruism and self-care. There are no universally acceptable solutions for these complex situations. As a profession, we should strive to move beyond dichotomous thinking and instead seek context -specific compromises that are more widely acceptable.

Conclusion

The CanMEDS 2025 Framework should incorporate virtues as an overarching 'role.' This is justified by the emphasis placed on virtues in CanMEDS 2015, their wide presence in the other seven roles of a physician, and their importance in core human values, as described in positive psychology, major religions, philosophies, and ethics. Assigning an overarching position to the virtuous role of the physician will strengthen educational and training strategies. aimed at catalyzing transformative changes in the physician's competencies and personal development, guiding them towards becoming a virtuous person.

Conflicts of Interest: The author has no conflicts of interest to declare.

Funding: The author's personal funds were used

Edited by: Marcel D'Eon (editor-in-chief)

References

1. Frank JR, Snell L, Sherbino J, editors. *CanMEDS 2015 physician competency framework*. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015. CanMEDS. History. Available at <http://canmeds.royalcollege.ca/en/about/histor> [Accessed on Mar 12, 2024].
2. Dagnone JD, Takahashi SG, Whitehead CR, Spadafora SM. Reclaiming physician identity: it's time to integrate 'Doctor as Person' into the CanMEDS framework. *Can Med Educ J*. 2020;11(4):e97-e99. <https://doi.org/10.36834/cmej.69182>
3. Annas J. *Intelligent Virtue*. Oxford: Oxford University Press; 2011. <https://doi.org/10.1093/acprof:oso/9780199228782.001.0001>

4. Francis R. *Report of the Mid Staffordshire NHS Foundation Trust public inquiry: executive summary*. 2013. <https://assets.publishing.service.gov.uk/media/5a7ba0faed915d13110607c8/0947.pdf> [Accessed on Apr 1, 2024].
5. Parliamentary and Health Service Ombudsman. *Dying without dignity*. 2015. <http://www.ombudsman.org.uk/reports-and-consultations/reports/health/dying-without-dignity>. [Accessed on Feb 23, 2024].
6. American Medical Association. *AMA Code of Medical Ethics*. 2016. Available at <https://www.ama-assn.org/sites/ama-assn.org/files/corp/media-browser/principles-of-medical-ethics.pdf> [Accessed on Mar 23, 2024].
7. World Medical Association. *WMA International Code of Medical Ethics*. 2018. Available at <https://www.wma.net/policies-post/wma-international-code-of-medical-ethics/>.
8. World Health Organization. *Global Competency and Outcomes Framework for Universal Health Coverage*. Geneva: World Health Organization; 2022.
9. Neumann M, Edelhäuser F, Tauschel D, et al. Empathy decline and its reasons: a systematic review of studies with medical students and residents. *Acad Med*. 2011;86(8):996-1009. <https://doi.org/10.1097/ACM.0b013e318221e615>
10. Andersen FA, Johansen AB, Sondergaard J, Andersen CM, Hvidt EA. Revisiting the trajectory of medical students' empathy, and impact of gender, specialty preferences and nationality: a systematic review. *BMC Med Educ*. 2020;20(1):52. <https://doi.org/10.1186/s12909-020-1964-5>
11. Hojat M, Vergare MJ, Maxwell K, et al. The devil is in the third year: a longitudinal study of erosion of empathy in medical school. *Acad Med*. 2009;84(9):1182-91. <https://doi.org/10.1097/ACM.0b013e3181b17e55>
12. Hojat M, Shannon SC, DeSantis J, Speicher MR, Bragan L, Calabrese LH. Does empathy decline in the clinical phase of medical education? A nationwide, multi-institutional, cross-sectional study of students at DO-granting medical schools. *Acad Med*. 2020 Jun;95(6):911-918. <https://doi.org/10.1097/ACM.0000000000003175>
13. Ponnampereuma G, Yeo SP, Samarasekera DD. Is empathy change in medical school geo-socioculturally influenced? *Med Educ*. 2019;53(7):655-65. <https://doi.org/10.1111/medu.13819>
14. Duffy TP. The Flexner Report--100 years later. *Yale J Biol Med*. 2011;84(3):269-76.
15. Peabody FW. The soul of the clinic. *JAMA* 1928;90:1193-1197. <https://doi.org/10.1001/jama.1928.92690420002009>
16. Peabody, FW. The care of the patient. *JAMA*. 1927;88:877-882. <https://doi.org/10.1001/jama.1927.02680380001001>
17. Nelson AR. Humanism and the art of medicine. *JAMA*. 1989; 262(9), 1228. <https://doi.org/10.1001/jama.1989.03430090090040>
18. Rabinowitz DG. On the arts and humanities in medical education. *Philos Eth Human Med*. 2021;16(1):4. <https://doi.org/10.1186/s13010-021-00102-0>
19. Reports of the Institute on Human Values in Medicine. Available at <https://files.eric.ed.gov/fulltext/ED107541.pdf>. [Accessed on Mar 20, 2024].
20. Bain LE. Revisiting the need for virtue in medical practice: a reflection upon the teaching of Edmund Pellegrino. *Philos Eth Human Med*. 2018 ;13(1):4. <https://doi.org/10.1186/s13010-018-0057-0>.
21. Pellegrino ED. Professionalism, profession and the virtues of the good physician. *Mt Sinai J Med*. 2002;69(6):378-84.
22. Duffy TP. The Flexner Report--100 years later. *Yale J Biol Med*. 2011;84(3):269-76
23. Miles A, Mezzich JE. The care of the patient and the soul of the clinic: person-centered medicine as an emergent model of modern clinical practice. *Internat J Person-Centered Med*. 2011;1:207-222. <https://doi.org/10.5750/ijpcm.v1i2.61>
24. Evans HM, Greaves DA. Ten years of medical humanities: a decade in the life of a journal and a discipline. *Med Humanit*. 2010;36(2):66-8. <https://doi.org/10.1136/jmh.2010.005603>
25. Ryan E, Hore K, Power J, Jackson T. The relationship between physician burnout and depression, anxiety, suicidality and substance abuse: a mixed methods systematic review. *Front Public Health*. 2023;11:1133484. <https://doi.org/10.3389/fpubh.2023.1133484>
26. General Medical Council: Our strategy: 2021-25. In. Edited by Council GM. Manchester: General Medical Council; 2020.
27. Verstegen PMB, Kole JJJ, Groenewoud AS, van den Hoogen FJA. Virtues in competency-based assessment frameworks: a text analysis. *Perspect Med Educ*. 2023;12(1):418-426. <https://doi.org/10.5334/pme.996>
28. Peterson C, Seligman MEP. *Character strengths and virtues: a handbook and classification*. Oxford University Press; American Psychological Association; 2004.
29. Coulehan J, Williams PC. Vanquishing virtue: the impact of medical education. *Acad Med*. 2001;76:598-605. <https://doi.org/10.1097/00001888-200106000-00008>
30. McKinnon, C. *Character, virtue theories, and the vices*. Orchard Park, NY: Broadview Press;1999.
31. Nissbaum M. Non-relative virtues: an Aristotelian approach. *World institute for development economics research of the United Nations University*. WP 32;1987. <https://doi.org/10.1111/j.1475-4975.1988.tb00111.x>
32. Hursthouse R, Pettigrove G. *Virtue ethics*. The Stanford Encyclopedia of Philosophy. Winter 2018 Edition. Edward N. Zalta (ed.), Available at <https://plato.stanford.edu/archives/win2018/entries/ethics-virtue/>.
33. Waters HM, Oswald A, Constantin E, Thoma B, Dagnone JD. Physician humanism in CanMEDS 2025. *Can Med Educ J*. 2023;14(1):13-17. <https://doi.org/10.36834/cmej.75536>
34. Dahlsgaard K, Peterson C, Seligman MEP. Shared virtue: the convergence of valued human strengths across culture and history. *University of Pennsylvania Rev Gen Psychol*. 2005;9 (3):203-213. <https://doi.org/10.1037/1089-2680.9.3.203>
35. Keown D. *Buddhist ethics: a very short introduction*. Oxford University Press; 1st edition; 2005.
36. Keown D. *The nature of Buddhist ethics*. Palgrave Macmillan London;1992
37. Sen, A. *The idea of justice*. Cambridge, MA: Harvard University Press; 2009.
38. Sreekumar S. An analysis of consequentialism and deontology in the normative ethics of the "Bhagavadgītā". *J Indian Phil*. 2012; 40(3):277-315: <https://doi.org/10.1007/s10781-012-9154-3>

39. Gupta B. "Bhagavad Gītā" as duty and virtue ethics: some reflections. *J Relig Eth.* 2006; 34(3):373-395:
<https://doi.org/10.1111/j.1467-9795.2006.00274.x>
40. Bhavna O a & Parmar N: Qualities of the Physician Mentioned in Brihatrayi -A Review. *Intern Ayurvedic Med J.* 2017; 5(7).
https://www.iamj.in/posts/images/upload/2635_2644_1.pdf
41. Krishnan G, Singh S, Pathania M, et al. Artificial intelligence in clinical medicine: catalyzing a sustainable global healthcare paradigm. *Front Artif Intell.* 2023;6:1227091.
<https://doi.org/10.3389/frai.2023.1227091>

Appendix A. The representation of elements of virtue in CanMEDS

| Key Concepts and Competencies that are Virtuous Characteristics that are included in CanMEDS | | | | Character Strengths and Universal Virtues from Positive Psychology | Alternate virtue to consider |
|--|--|---|---|---|------------------------------|
| Roles | Key Concepts selected from those listed under each role | Key Competencies (corresponding to Key Concepts) | Enabling Competencies (in relation to Key Competencies) | | |
| Medical Expert | Compassion | NA | NA | Humanity: Kindness | |
| | Self-awareness of limits of expertise | NA | NA | Temperance: Self-regulation | |
| Communicator | Empathy | NA | Communication characterized by empathy, respect, and compassion | Humanity: Kindness | |
| | NA | NA | Recognize values, biases, or perspectives of health care professionals impacting on care, and modify the approach | Wisdom: Perspective | |
| | Mutual understanding | Engage patients and their families in developing plans that reflect the patient's health care needs | Facilitate discussions with patients and their families that is respectful, non- judgmental, and culturally safe | | Empathy |
| | Respect for diversity | NA | NA | Justice: Fairness | |
| | Trust in the physician–patient relationship | NA | NA | | Trust |
| Collaborator | Recognizing one's own roles and limits | NA | NA | Wisdom: Perspective | |
| | Respect for other physicians and members of the health care team | Work with colleagues to promote understanding, manage differences, and resolve conflicts | Show respect toward collaborators | Transcendence: Gratitude Justice: Fairness, leadership, teamwork | |
| | Respecting and valuing diversity | NA | NA | Justice: Fairness | |
| Leader | Consideration of justice, efficiency, and effectiveness in the allocation of resources | NA | NA | Justice: Fairness | |
| | Priority-setting and stewardship | Engage in the stewardship of health care resources | Set priorities and manage time to integrate practice and personal life | Justice: Fairness | |
| Health Advocate | Social accountability of physicians | NA | NA | Courage: Honesty, bravery, persistence | |
| Scholar | Lifelong learning | | | Wisdom: love of learning, | |
| | Reflection on practice | | | Wisdom: Perspective | |
| | Self-improvement | | | Wisdom: Open-mindedness, love of learning, | |
| | Role-modelling | Recognize the influence of role-modelling and the impact of the formal, informal, and hidden curriculum on learners | NA | Humanity: Social intelligence | |

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|--------------|---|--|----|---|------------|
| | Scholarly inquiry | Pose questions amenable to scholarly inquiry and select appropriate methods to address them | NA | Wisdom: love of learning | |
| | NA | Engage in the continuous enhancement of their professional activities through ongoing learning | NA | Wisdom: love of learning | |
| Professional | Commitment to patients | Exhibit appropriate professional behaviours and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality | NA | Courage: Honesty, Humanity: Kindness Justice: Fairness Temperance: modesty, prudence, self-regulation | |
| | Altruism | | NA | | Compassion |
| | Commitment to excellence in clinical practice and mastery of the discipline | Demonstrate a commitment to excellence in all aspects of practice | NA | Wisdom: love of learning | |
| | Compassion and caring | NA | NA | | Compassion |
| | Insight | NA | NA | Wisdom: Perspective | |
| | Integrity and honesty | NA | NA | Justice: Fairness | |
| | Professional boundaries | NA | NA | Wisdom: Perspective | |
| | Respect for diversity | NA | NA | Justice: Fairness | |
| | Commitment to society | NA | NA | Transcendence: Gratitude | |
| | Social contract in health care | NA | NA | Transcendence: Gratitude | |
| | Conflicts of interest | Recognize and manage conflicts of interest | NA | Wisdom: Perspective | |
| | Mindful and reflective approach to practice | NA | NA | Wisdom: Perspective | |
| | Responsibility to self, including personal care, in order to serve others | NA | NA | Wisdom: Self-regulation | |
| | Bioethical principles and theories | Fulfill and adhere to the professional and ethical codes, standards of practice, and laws of practice | NA | Temperance: Self-regulation | |
| | | Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions | NA | Temperance: Self-regulation | |

"NA" (ie "Not Applicable") is when a Key Concept lacks corresponding Key Competencies or Enabling Competencies.