

MEDICAL EDUCATION

Co-Creating an Expansive Health Care Learning System

Alan Cribb, PhD, John Owens, MA, PhD, and Guddi Singh, MB BChir, MPH

Abstract

How should practices of co-creation be integrated into health professions education? Although co-creation permits a variety of interpretations, we argue that realizing a transformative vision of co-creation—one that invites professionals to genuinely reconsider the purposes, relationships, norms, and priorities of health care systems through new forms of collaborative thought and practice—will require radically rethinking existing approaches to professional education. The meaningful enactment of co-creative roles and practices requires health professionals and students to negotiate competing traditions, pressures, and expectations. We therefore suggest that the development of what we call an “expansive health care learning system” is crucial for supporting learners in meeting the challenges of establishing genuinely co-creative health care systems.

Introduction

Co-creation means bringing together health professionals, patients, providers, and other key stakeholders to jointly address health care problems [1]. If this is to be feasible, then clinicians (and other stakeholders) need to be prepared for co-creation, which would entail ambitious changes to health professions education. That, at least, is what we intend to argue in this article, and, in so doing, we also hope to indicate the breadth and depth of the relevant ambition for medical education. We define what is needed as an “expansive health care learning system” that challenges traditional conceptions of, and boundaries between, teachers and learners and theoretical and practical expertise [2].

All professional education, in every sector, is intended to transcend boundaries—for example, between the classroom and the workplace, theory and practice [3], the official and hidden curriculum, and so on. Classrooms and other formal educational settings are valuable for providing spaces to explore practices and to question prevailing norms, but unless whatever is learned in them can be translated into the wider world, learning is likely to have a short half-life [4]. We can easily imagine a medical student, let’s call her Jenny, learning about co-creation in medical school and then cycling to work at a hospital and discovering that her desire to co-create—for example, to involve patients in service redesign—is not shared by her colleagues or, more fundamentally, by the norms of her

workplace. Can—and how might—the pieces of her and our learning environments be better matched up? In this article, we review the opportunities for and challenges to building co-creation into the medical school classroom, the hidden curricula of both medical schools and workplaces, and the broader health care system.

Teaching and Enacting Co-Creation in Medical Schools

The opportunities for relevant learning in medical school are substantial. Jenny could learn about the principles and experience putting them into practice [5, 6]. For example, the curriculum might stress the importance of shared decision making between health professionals and patients [7]. This focus could include some reflection on both the ethical and instrumental rationale for shared decision making—that it treats patients with respect, harnesses multiple stakeholders' perspectives and expertise, and is responsive to patient values. Co-creation could therefore be presented as central to ensuring that health care is effective and valuable in terms that matter to health professionals, patients, and other stakeholders [8]. There could also be some emphasis on the *practices* of shared decision making, including perhaps the [communication challenges](#) of working with patients who might resist taking an active role in decision making. Possibilities for addressing these challenges could include helping patients access and use decision aids and, through that process, students learning from nursing colleagues or physician assistants who are already experienced in, and employed in, roles that support such practices.

More fundamentally still, many aspects of the medical school curriculum could themselves be co-created such that the school seeks to practice what it preaches. This level of reform, which involves organizational change to model and foster collaboration, is more demanding than simply revising the content of a curriculum, but could be undertaken in a number of ways: through patient and public involvement in the co-creation and enactment of curricula, pedagogies, and assessments [9]; through interprofessional education in which members of different occupational groups learn to work together and to understand the complementarities (as well as some of the tensions) in doing so [10]; and through peer-assisted learning in which students, acting either as teachers or as teacher-course developers, work with staff to foster a learning culture and to support one another [11]. Such examples of collaboration or partnership can still involve someone taking a leadership role but typically entail less hierarchical relationships, especially between clinicians and patients [12]. These more fundamental kinds of reform are challenging to bring about, but they have the potential to create deeper forms of learning—that is, deep-seated values and attitudes—because they allow students like Jenny to practice and not just hear about co-creation.

For the individual learner, such depth is crucial if learning is to be more than merely a cognitive appreciation of co-creation. The whole person, including his or her dispositional and affective makeup, needs to be influenced by the practice of collaboration for learning

to be sustained and realizable through ongoing habits of mind and action [13]. But achieving this kind of embedded learning is dependent upon a significant degree of support and reinforcement from [medical school cultures](#) and practices. The medical school itself—and not just isolated individuals—both embodies and reproduces values and habits, which is why there is—rightly—so much emphasis on the power of the [hidden curriculum](#) in medical education [14]. Everyone knows that there is a difference between “talking the talk” and “walking the walk.” The official curriculum might radiate gentle messages of partnership, teamwork, relationship-centred care, and so on, accompanied by talk of reduced hierarchies of power and knowledge, but these messages can easily be cancelled out by a hidden curriculum that reinforces traditional hierarchical arrangements within medicine. In other words, not just individual students like Jenny, but their educators and the norms of learning institutions, need to change “root and branch” if co-creation is to be something more than an aspiration or, at best, a very partial and patchy development.

Barriers to Co-Creation in Health Professions Education

The challenges produced by what we have said thus far are substantial. It is not only that the changes required to embed co-creation in medical education are extensive and that there are many motivational and practical obstacles to overcome, but also that these obstacles cannot simply be seen as a product of inertia, blind resistance, or conservatism. Rather, there are fundamentally important questions to be asked about the merits (and drawbacks) of the old and the new—questions about how best to integrate co-creation into meaningful and viable forms of education and what is best about long-standing traditions of professional expertise and authority [15]. There are fundamental debates about the trade-offs between potentially conflicting roles and values, such as encouraging participation from patients versus “off-loading” responsibilities onto patients or [professional versus patient priorities](#) [16].

Such debates need to be consciously addressed not only at an organizational level but also by individual students such as Jenny and by experienced professionals as they move between contexts and cases [17]. Indeed, learning to co-create can be seen as making substantial new demands on all professionals. In structures and cultures defined by co-creation, the core activities of health professionals demand expertise in managing new kinds of relationships and in value questions as well as clinical questions. That is, health professionals will typically need to be accomplished in forming and sustaining relationships under conditions of partnership and skilled at facilitation and guidance while simultaneously being ready to question their own assumptions. This inevitably creates a series of complex balancing acts and value dilemmas. For Jenny to feel reasonably confident about engaging in co-creation she will need to have thought about, and tried to practice, navigating such debates and related dilemmas.

However, as we have indicated, an even greater set of challenges arises because properly embedding co-creation in health care professional learning would require analogous structural and cultural reform that extends beyond medical schools across the whole health care system. The most influential currents of the hidden curriculum are to be found outside of medical schools because they are embedded in the cultural norms and institutional constraints of workplace settings. Unless these wider cultures and structures are reformed, then Jenny will effectively be forced to unlearn the principles and practices of co-creation that she acquired in medical school in order to fit in with the realities of her hospital work.

Having acknowledged the challenges of co-creation here, we will not dwell on them. There is always time, on another day, for caution and qualification, but in what remains of this article we prefer to focus on what we see as the substantial implications of co-creation. We describe these as “substantial” not only because they involve the root-and-branch changes we have already discussed but also because they have relevance across the whole health system.

Expanding Learning

There are reasons to be both ambitious and optimistic about building the values and strategies of co-creation into health care education. Major transitions are taking place in health systems and in many respects these will necessitate new approaches to learning. Something of this dynamic is captured in the already established idea of a *learning health care system* [18, 19], a label that suggests both the breadth and depth we have in mind. It usefully conveys the idea that the conditions for learning should be in place everywhere and always and that this learning should require us to rethink and rework some of our core assumptions and categories. The emphasis to date has been upon the remarkable potential of digital data. The advent of electronic health records, along with the capacity for ever-expanding, real-time monitoring (including self-monitoring) and data analytics, provides the system with the capability to learn from and for every single patient [20]. Yet we would suggest that this version of a learning health care system, while certainly valuable and quite far-reaching, is too limited in scope. Realizing the possibilities of [digital learning](#) will itself require new forms of co-creation with patients because access to and use of digital data depends upon new collaborative relationships among individuals, groups, and health systems. Relatedly, the realization of a health care learning system involves rethinking traditional assumptions about confidentiality and data usage being centred on one-on-one clinician-patient relationships and about the distinction between individualized care and public health more generally [2].

For these reasons we would argue that embedding co-creation in health systems requires an expansive learning health care system. The limitation of the more circumscribed lens is that the learning involved will simply be about the optimal utilization of data (important though that is). But the challenge of co-creation is more

extensive: it is, as we have noted, about the potential control of the health agenda; who defines purposes, relationship norms and priorities; and how these things are negotiated and settled [17]. The learning needed for, and fostered by, a co-creating health system, including medical education, is expansive in multiple senses: in addition to being a pervasive possibility, it would position all actors as both teachers and learners; it would operate with a holistic and fluid conception of expertise (incorporating, for example, expertise in relationships and values); and it would be oriented not just to cognition but to all aspects of persons—their practices, dispositions, and emotions.

This account of how to transform health professions education for co-creation is obviously more of an overarching vision than a practical strategy. In reality, the resistance from both medical school and workplace hidden curricula, as noted above, would be considerable and would, to some extent, inhibit the potential of co-creation indicated here. Nonetheless, there is something to be said for reviewing ideals before getting bogged down with the practicalities. If Jenny is to learn how to successfully manage co-creation in her immediate encounters, then system leaders need to be ready to contemplate what co-creation might mean at a system level, the conditions that might support that endeavour, and the myriad kinds of learning required.

Conclusion

We have argued that co-creation can have far-reaching implications for medical education and the health system more generally. If the next generation of clinicians and other health care actors are to be properly prepared, medical schools and workplaces must not only teach but also practice collaboration and counter some of the traditional norms embedded in hidden curricula. We suggest that ambitious and expansive thinking is needed if this is to happen.

References

1. Ramaswamy V, Ozcan K. *The Co-Creation Paradigm*. Stanford, CA: Stanford University Press; 2014.
2. Cribb A. *Healthcare in Transition: Understanding Key Ideas and Tensions in Contemporary Health Policy*. Bristol, England: Policy Press; 2017.
3. Winch C. *Dimensions of Expertise: A Conceptual Exploration of Vocational Knowledge*. London, England: Continuum International Publishing Group; 2010.
4. Eraut M. Informal learning in the workplace. *Stud Contin Educ*. 2004;26(2):247-273.
5. Wallace LM, Turner A, Kosmala-Anderson J, et al. *Evidence: Co-Creating Health: Evaluation of First Phase*. London, England: Health Foundation; 2012. <http://www.health.org.uk/mwg-internal/de5fs23hu73ds/progress?id=EOe09MTNkeTnqOr91ggJpFZikDutLX3qXgiUcFyk33s,&dl>. Accessed September 29, 2017.
6. Batalden M, Batalden P, Margolis P, et al. Coproduction of healthcare service. *BMJ*

- Qual Saf.* 2016;25(7):509-517.
7. Elwyn G, Edwards A, Thompson R. *Shared Decision Making in Health Care: Achieving Evidence-Based Patient Choice*. Oxford, England: Oxford University Press; 2009.
 8. Mulley AG, Trimble C, Elwyn G. Stop the silent misdiagnosis: patients' preferences matter. *BMJ.* 2012;345:e6572. doi:10.1136/bmj.e6572.
 9. Towle A, Bainbridge L, Godolphin W, et al. Active patient involvement in the education of health professionals. *Med Educ.* 2010;44(1):64-74.
 10. Carpenter J, Dickinson H. *Interprofessional Education and Training*. Bristol, England: Policy Press; 2016.
 11. Furmedge DS, Iwata K, Gill D. Peer-assisted learning—beyond teaching: how can medical students contribute to the undergraduate curriculum? *Med Teach.* 2014;36(9):812-817.
 12. Entwistle VA, Cribb A. Enabling people to live well: fresh thinking about collaborative approaches to care for people with long-term conditions. London, England: Health Foundation; 2013. <http://www.health.org.uk/mwg-internal/de5fs23hu73ds/progress?id=pX0pkoMo3UEtdFijmriUnVAWHTZavxw1mr-ZnBMG5gU,&dl>. Accessed September 29, 2017.
 13. Claxton G, Lucas B. The hole in the heart of education (and the role of psychology in addressing it). *Psychol Educ Rev.* 2016;40(1):4-12.
 14. Hafferty FW, O'Donnell JF, eds. *The Hidden Curriculum in Health Professions Education*. Lebanon, NH: Dartmouth College Press; 2015.
 15. Cribb A, Gewirtz S. *Professionalism*. Cambridge, England: Polity; 2015.
 16. Owens J, Entwistle VA, Cribb A, et al. "Was that a success or not a success?": a qualitative study of health professionals' perspectives on support for people with long-term conditions. *BMC Fam Pract.* 2017;18(1):39. <https://bmcfampract.biomedcentral.com/articles/10.1186/s12875-017-0611-7>. Accessed August 8, 2017.
 17. Singh G, Owens J, Cribb A. What are the professional, political, and ethical challenges of co-creating health care systems? *AMA J Ethics.* 2017;19(11):1132-1138.
 18. Olsen L, Aisner D, McGinnis JM; Institute of Medicine. *The Learning Healthcare System: Workshop Summary*. Washington, DC: National Academies Press; 2007.
 19. Grossmann C, Goolsby WA, Olsen L, McGinnis JM; Institute of Medicine; National Academy of Engineering. *Engineering a Learning Healthcare System: A Look at the Future: Workshop Summary*. Washington, DC: National Academies Press; 2011.
 20. Foley T, Fairmichael F. The potential of learning healthcare systems. Learning Healthcare Project; November 2015. http://www.learninghealthcareproject.org/LHS_Report_2015.pdf. Accessed August 8, 2017.

Alan Cribb, PhD, is a professor of bioethics and education at King's College London, where he is also the co-director of the Centre for Public Policy Research at the School of

Education, Communication and Society. He has a particular interest in interdisciplinary approaches to professional education, health services research, and health policy. Much of his recent work focuses on the philosophy, policy, and practice of person-centered care.

John Owens, MA, PhD, is a lecturer in public policy and education at King's College London, where he is also a member of the Centre for Public Policy Research at the School of Education, Communication and Society. His research focuses on applying philosophical, political, and sociological perspectives to issues in contemporary public policy, particularly in the areas of health care and education.

Guddi Singh, MB BChir, MPH, is a pediatric registrar in London and a clinical fellow at Health Education England with wide experience in global public health. Having previously worked on issues related to social justice and health equity with the World Health Organization and Medact, she is now researching how medical professionalism and education might advance in the light of the social dimensions of health and illness.

Acknowledgements

Alan Cribb is a professorial fellow at the Health Foundation and is grateful for the associated funding.

Related in the *AMA Journal of Ethics*

[How Co-Creation Helped Address Hierarchy, Overwhelmed Patients, and Conflicts of Interest in Health Care Quality and Safety](#), November 2017

[Why Aren't Our Digital Solutions Working for Everyone?](#), November 2017

[Professional Socialization in Medicine](#), February 2015

[The Role of the Hidden Curriculum in "On Doctoring" Courses](#), February 2015

[Using Principles of Co-Production to Improve Patient Care and Enhance Value](#), November 2017

[What Should Leaders Do When Inefficiency Is Perceived as a Cost of Inclusivity in Strategic Planning Processes in Health Care?](#), November 2017

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

**Copyright 2017 American Medical Association. All rights reserved.
ISSN 2376-6980**