

Editorial

More than the sum of their parts – producing fit for purpose anaesthesiologists

The preparation of specialists has shifted from the idea of a global knowing of the capacity of the graduate to a competency-based framing of what an appropriate qualification should be.¹ There is a growing realisation that the specialist anaesthesiologist should graduate with an ability to perform in both technical and non-technical domains. Health care systems are becoming increasingly complex, and hence both these competencies are necessary for effective delivery of care.

Cuthbert² elegantly describes the development of a registrar from an initial slow gathering of information through a rapid exponential growth in which the expertise is gained. The author compares this development to the oxygen haemoglobin dissociation curve which ends in a plateau phase during which the registrar finally gets a sense of being a specialist. This final period of preparation is characterised by a growing confidence in their decision-making ability and the acceptance into the specialist community of practice.

Van Schalkwyk, Bezuidenhout and De Villiers³ describe the process of becoming a doctor in a rural environment in a manner which may be instructive for the postgraduate environment. The authors assert that learning in this unique and challenging rural environment is the result of the interaction between the three dimensions of 'Person, Participation and Place'. The personal and professional development of the individual through a series of learning encounters, they argue, is mediated through their appropriate engagement with their prospective community of practice. It is this context of learning which legitimises their agency, ensuring that they grow into the role of doctor (specialist).

Kalafatis, Sommerville and Gopalan⁴ suggest that the fit for purpose graduate is attained when good doctoring intersects with the acquisition of competencies and expertise above those of the ordinary. They explore the tension between the prevailing competency frameworks and the practice of anaesthesia, arguing that these may not always be in harmony. The authors juxtapose the Accreditation Council for Graduate Medical Education (ACGME) and the Canadian Medical Education Directives for Specialists (CANMeds) competencies in a table, which provokes further reflection. These competencies echo

the journeys which medical education has taken from the Flexnerian dichotomies to an integrated systems-based approach.⁵ Frenk et al.⁵ through the Lancet Commission, call for transformation of the education of health professionals. They describe three historical phases of medical education – informative (focussed on content knowledge), formative (development of professional identities) and transformative (global competencies for change agency in systems). I would argue these phases are iterative and complementary, rather than sequential as argued in the Lancet report. Each of these periods is reflected in the competencies frameworks. In the pursuit of matching the education to a fitness of purpose, these domains are listed in the table below with questions that are provoked.

Education communities teaching in the primary care domains have advanced the understanding and practice of fit for purpose graduates much further than the discourse in the specialist learning environments.⁹ The communities for anaesthesia may be those affected through engagement with maternal health in which anaesthesia still causes preventable death or the global challenges in safe surgery/anaesthesia/obstetrics.^{10,11} The Health Ministers of the SADC region¹² have added momentum to the Global Surgery campaign through their recent statement committing the region to "re-affirm their commitments and pursue efforts to Strengthen Emergency and Essential Surgical Care and Anaesthesia as an integral component of the revival of Primary Health Care and acceleration towards Universal Health Coverage at all levels of the health system".¹¹ This is the first occasion that the delivery of safe anaesthesia has been explicitly inserted into the primary health care domain in pursuit of universal health coverage. The conversation within the anaesthesia environment may need to focus on the purpose we wish to build fitness for; for example, is it a fee for service driven environment or is it one in which universal access becomes a central tenet. I would argue that both these contexts will need directed reflections on what fitness means.

Kalafatis, Sommerville and Gopalan⁴ have offered the following reflection: '*in resource-poor low and middle-income countries (LMIC), the needs of a nation may be prioritized over those of the individual. Training*

Table 1: The challenges of teaching and learning with a focus on specialists who are fit for purpose. The convergence of competencies frameworks and ages of learning presented in the Lancet Commission⁵

Competency domain ⁴	Lancet Commission learning phase ⁵	Fit for purpose challenges
Professionalism	Formative	What is the tension between professional identity and the social compact implied? To what extent is our professionalism linked to self-interest or social justice? ⁶
Communication/ collaboration	Transformative	To what extent is the interprofessional team harnessed as part of the care environment? ⁷
Systems based practice/ advocacy	Transformative	To whom shall we be accountable? To what extent can we harness the partnerships (community, government policy makers, managers, the academic community) which are integral to the delivery of optimal health care? ⁸
Practice based learning/ scholarship	Informative	Can we ensure adaptive development of the specialist after graduation? Does our sense of scholarship respond to the needs of the society?
Medical expert/ patient care	Informative/ transformative	To what extent is our conception of academic excellence embracing the complexity of the twenty-first century? Is our concept of academic excellence caught in a binary between either knowing or being?

of anaesthesiologists needs to consider this, together with considerations of national demographics, education levels, ethnic groups and cultural practices of communities.'

This suggestion may be the start of a difficult yet important conversation for anaesthesiology as well as other specialist disciplines. The recent Academy of Science of South Africa (ASSAf) consensus report (Reconceptualising health professions education in South Africa) proposes a conceptual framework, which is rooted in the needs of the nation, which should direct the health services.¹³ In an attempt to meet those needs an appropriate mix of health professionals should be educated in a manner which enables them to be responsive within that system. This framework relies on a collaborative approach to governance and leadership in which all partners have an impact on outcomes.

The article by Kalafatis, Sommerville and Gopalan in this journal introduces an important conversation about the meaning of fitness for purpose for anaesthesia in South Africa. Perhaps it allows us to question more deeply what fitness means. It invites the interrogation of whose purpose must be served through the graduating specialist class in the twenty-first century. Perhaps it reminds most urgently that our specialists must be more than the knowledge factoids they accumulate. They truly must be more than the sum of their parts.

L Green-Thompson

Associate Professor and Dean, School of Medicine, Sefako Makgatho Health Sciences University, Ga-Rankuwa, Pretoria, Gauteng, South Africa

References

1. Tetzlaff JE. Assessment of Competency in Anesthesiology. *Anesthesiology*. 2007;106(4):812-25. doi: 10.1097/01.anes.0000264778.02286.4d
2. Cuthbert S. Anaesthesiology registrar's experience of their training at the University of the Witwatersrand: A qualitative study [Research Report]. Johannesburg: University of the Witwatersrand; 2017.
3. Van Schalkwyk SC, Bezuidenhout J, De Villiers MR. Understanding rural clinical learning spaces: Being and becoming a doctor. *Medical Teacher*. 2015;37(6):589-94.
4. Kalafatis N, Sommerville T, Gopalan P. Fitness for Purpose in Anaesthesiology - a Review. *Southern African Journal of Anaesthesia and Analgesia*. 2018;24(6):7-13
5. Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *Lancet*. 2010;376(9756):1923-58.
6. Medical Professionalism Project. Medical Professionalism in the New Millennium: A Physician Charter. *Ann Intern Med*. 2002;136(3):243.
7. Interprofessional Education Collaborative Expert Panel. Core Competencies for interprofessional collaborative practice: Report of an expert panel. Washington DC: Interprofessional Education Collaborative; 2011.
8. Woollard R. Caring for a common future: medical schools' social accountability. *Medical Education*. 2006;40.
9. Pálsdóttir B, Barry J, Bruno A, Barr H, Clithero A, Cobb N, et al. Training for impact: the socio-economic impact of a fit for purpose health workforce on communities. *Human Resources for Health*. 2016;14(1):49.
10. National Committee for the Confidential Enquiries into Maternal Deaths. Saving Mothers 2014-2016: Seventh triennial report on confidential enquiries into maternal deaths in South Africa: Short report 2018 11 November 2018. Available from: https://www.sasog.co.za/Content/Docs/Saving_Mothers.pdf
11. Lancet Commission on Global Surgery. Global Surgery 2030 evidence and solutions for achieving health, welfare, and economic development 2015. Available from: http://www.globalsurgery.info/wp-content/uploads/2015/01/Overview_GS2030.pdf
12. Southern African Development Community. SADC Ministers of Health Namibia 8 November 2018. In: Health, ed. Namibia; 2018.
13. Academy of Science of South Africa. Reconceptualising Health Professions Education in South Africa 2018. Available from: <http://research.assaf.org.za>