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# Visions of generalism – what does the future hold?

This article is part of a series on generalism that reviews some of the challenges facing general practice in Australia and worldwide, and considers possible solutions.

## Keywords

general practice; delivery of healthcare, integrated; philosophy, medicine; history of medicine

Support for generalism is underpinned by more than 100 years of writings and these writings point to writers and thinkers who have grappled with the tensions between generalism and specialism since ancient Egyptian times. Taking a historical stance we make the case that generalism is here to stay. But, what does the future hold? We outline some ideas for growing generalism in the wake of smart technologies, personalised medicine and the deluge of ever increasing health information.

In 1889 Andrew Smith MD wrote in *Harper's New Monthly Magazine* that specialism was on the rise and there was a need to ensure that the importance of the family physician as generalist was maintained.<sup>1</sup> Smith warned against the dangers of pitting specialism against generalism. He argued that both were needed and that the generalist offered 'that element of cohesion which binds medicine together as a homogenous if not always harmonious whole, and which gives unity and definiteness to its common aims'. Fast forward almost a century to Edmund Pellegrino's first annual lecture to the American Academy of General Practice (AAGP) in 1966. Pellegrino's address set out the fundamental unit of medicine as 'personal confrontation of one human in distress by another who presumes to help with special knowledge'.<sup>2</sup> He suggested that generalist practice was 'an attitude of mind – rare in most professions today ...' and he described this further using the writings of J. H. Newman on the idea of the University '... the power of viewing many things as one whole, ... understanding

their respective values and determining their mutual dependence'.<sup>2</sup>

Pellegrino was ahead of his time. He foreshadowed that the generalist of tomorrow would require 'less emphasis on manipulative functions and direct care and more emphasis on supervision, coordination, interpretation and diagnosis of total needs'.<sup>2</sup> He noted the coming importance of the computer in medical practice while at the same time noting the need for increased emphasis on the social and community determinants of illness and the need for the generalist to be well versed in the language of behavioural science, ecology and epidemiology. He ended his address with a firm call for the discipline to be underpinned by a sound academic footing.<sup>2</sup>

Over the past 100 years this academic footing has taken a firmer hold in generalist medical practice and what people have termed 'generalism' is the focus of a great deal of discussion. This has been in terms of defining the concept and shifting the tension that exists between generalist and specialist disciplines.<sup>3</sup> Viewing generalism through this historical lens indicates that the concept is here to stay. It has stood the test of time and it will continue to do so. While much has been written about generalism, it is time to ask if there has been anything new to say; what is the future of generalism? What impact will smart technologies have in 10 or 20 years? How will detailed health information, available almost instantaneously, shape generalist practice? Moreover, will the same emphasis be given to the personal care and whole person knowledge heralded as central to generalism in future primary medical care? We sought to answer some of these questions in 2006 when we were awarded a research grant by the Australian Primary Health Care Research Institute (APHCRI) to investigate 'What is the place of generalism in the 2020 primary care team?'<sup>3-5</sup>

One of the first research tasks was to synthesise the large body of writings on generalism and distil the essential dimensions as identified from the literature. We put forward a three-dimensional model of generalism

described as ‘ways of being, knowing and doing’, with a crucial function being the ability to balance biotechnical and biographical knowledge with an emphasis on the patient as a person in a unique context.<sup>4,5</sup> This conceptual model was published in 2008 in the *Medical Journal of Australia* for a special issue on Alma-Ata where we outlined generalism as a philosophy of practice for primary care practitioners. Table 1 illustrates the original conceptual model.<sup>5</sup>

Our research was timely as it coincided with the movement in the USA to develop the patient-centred medical home (PCMH), which had a strong focus on the central place of generalist primary care physicians within the healthcare system.<sup>6</sup> Subsequent to this, we formed a collaboration with Professor Kurt Stange, who was writing a series of editorials about the PCMH<sup>7,8</sup> and the importance of generalism.<sup>9–11</sup> In 2008 we were awarded an APHCRI Travelling Fellowship

to visit Canada and the USA to further the work with the Canadian Health Services Research Foundation, Professor Stange, the Robert Graham Center and to hold discussions with Edmund Pellegrino.

Since 2009, interest in generalism has grown exponentially and a number of medical professional organisations have begun to voice their opinions. In 2011 the Royal College of General Practitioners (RCGP) and the Health Foundation in the UK launched their independent report ‘Guiding patients through complexity: modern medical generalism’<sup>12</sup> followed in 2012 by a separate report by the RCGP, ‘Medical generalism: why expertise in whole person medicine matters’<sup>13</sup> and the 2012 Australian Medical Association (AMA) position statement on ‘Fostering generalism in the medical workforce’.<sup>14</sup> The RCGP’s strategic plan (2013–2017) nominated the College as a champion for medical generalism and the concept

is embedded in its 2022 vision for general practice.<sup>15</sup> More recently, Philips et al in the US detailed the Future of Family Medicine’s (FFM) role definition statement for family physicians in the future.<sup>16</sup>

This attention suggests that generalism has secured its place in healthcare. This place must be viewed in the context of greater complexity with more people living with long-term conditions and a need, according to the RCGP, to ‘access rapid supports in diagnostic processes and treatment planning’.<sup>12</sup> The era of personalised medicine may offer potential benefits through early identification of risk of fatal conditions, and the tailoring of medicines to avoid adverse reactions and better targeting of drugs to prevent using those that have no chance of helping us. Yet, as personalised as personal medicine is, it also represents a paradox for generalism. One of the fundamental steps in personalised medicine is the greatest fragmentation of the human condition that has ever been undertaken: the reduction of humans into fragments of DNA. Thus, new science and technology may be said to have the potential to impact on essential elements of generalism such as the face-to-face relationship and, importantly, the role of wisdom (phronesis) in medical practice.

A key element of generalist practice is the ability to use tacit, experiential and implicit information to exercise wisdom, prudence and judgement.<sup>20</sup> Genetic testing and the introduction of molecular pathology tests provides an interesting platform for considering the generalist function in the future. It is not clear exactly how beneficial or challenging the introduction of these technologies into clinical practice will be for individuals or for practitioners and how much it will impact on the role that phronesis has. Generalists should, however, be preparing to continue their role as the interpreter of complex information produced from such tests and assisting the patient to decide on a course of action to ensure that the benefits of this new explosion of clinical information will outweigh the possible harms. To date, there has been little preparation for this role in our professional and post-graduate training programs.

At the core of the generalist function is doctor–patient communication and the doctor–patient relationship, epitomised in the concept of personal care. Physical examination in clinical practice has been supplemented by technology, and more clinical work can be done ‘at a distance’ through advanced imaging technologies, telemedicine initiatives and by different healthcare providers. This allows us a

**Table 1. A conceptual model: the essential dimensions of generalism**

| Dimensions of generalism                | Explanations: the key features                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ways of being (ontological frame)       | <b>Virtuous character:</b> holds ethical character traits of compassion, tolerance, trust, empathy and respect.                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Reflexive:</b> interdependent, reflects on judgments and biases, lifelong learner.                                                                                                                                                                                                                                                                                                                                                                          |
|                                         | <b>Interpretive:</b> processes of interpretation are used to understand patient with an emphasis on the contextual factors, use of multiple health systems languages, active listener, autonomous decision-maker, good communication skills.                                                                                                                                                                                                                   |
| Ways of knowing (epistemological frame) | <b>Biotechnical:</b> uses scientific and rational evidence, high index of suspicion, bio-medically driven, technically focussed, uses advanced information systems.                                                                                                                                                                                                                                                                                            |
|                                         | <b>Biographical:</b> concentrates on lived-experience and life-story, family, carers, community and social knowledge all provide evidence.                                                                                                                                                                                                                                                                                                                     |
| Ways of doing (practical frame)         | <b>Access:</b> accessible, first-contact point, gatekeeper, provides referral.                                                                                                                                                                                                                                                                                                                                                                                 |
|                                         | <b>Approach:</b> balances individual versus population needs, consultation-based, holistic, comprehensive, flexible, adaptable, acts across clinical boundaries, provides early diagnosis, interdisciplinary team approach, negotiates & coordinates services, integrates knowledge, promotes health through education, prevents disease, is culturally sensitive, provides patient-centred care, minimises service inequities, reduces service fragmentation. |
|                                         | <b>Time:</b> provides continuity of care over whole of life cycle.                                                                                                                                                                                                                                                                                                                                                                                             |
|                                         | <b>Context:</b> community-based, uncertain, complex, deals with undifferentiated multiple problems of patients, acute and chronic care.                                                                                                                                                                                                                                                                                                                        |

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great opportunity to redesign how we do things and ensure that generalism's future can embrace these technological advances. Just as general practice led the computerisation of medical practice in Australia, general practice could lead (and there are signs this is beginning) the embedding of new technologies and communication modes into clinical practice.

In conjunction with such scientific advances, modes of communication have rapidly changed. So much of our day-to-day communication is done at a distance, done in the virtual world. Yet this communication is often intensely personal and intimate. Pellegrino's description of the fundamental unit of medicine as the 'personal confrontation' needs to be recast to embrace the digital and virtual world rather than shun it. The generalist should lead this recasting so it is done in a way that preserves human-human interaction and keeps central the focus on the whole person.

The generalist is also well placed to take a role in the collection, interpretation and use of 'big data' to inform how our healthcare system is organised. In the US the future vision of generalist practice is for individual-level data to be linked with public health and population health data to better understand patient and community needs,<sup>16</sup> a trend we can expect to increase in Australia. Of paramount importance is the need to maintain a close eye on health inequities. As risk profiles and point-of-care testing become the norm, and virtual consultations outnumber face-to-face care, it is likely that the gap between rich and poor will widen even further unless direct action is taken to avoid this.

We can imagine that telemedicine and the ability to access a general practitioner (GP) or other healthcare provider through the internet may introduce a role for the 'roaming generalist'. Instead of this contributing to the erosion of those highly valued and traditional functions of the generalist, technological advances may see a return to those practices and values heralded by the profession as essential. For example, as less complex health concerns are addressed through virtual mechanisms, the generalist may be called upon to provide more home visits (some of which may just as easily occur in the virtual world allowing the GP to 'travel' vast distances) to patients for conditions and issues that are more complex. The generalist will need to continue to combine phronesis (practical wisdom and reasoning) with episteme (theoretical and scientific knowledge) and techné (applied knowledge in an art or craft).<sup>17,18</sup>

The future generalist could be engaged by a number of individuals to be their 'personal physician' but we do not advocate for the concierge style medicine emerging in the US, which risks widening health inequities. With the emergence of new modes of communication and new technologies for risk assessment and diagnosis that rely less and less on physical examination, it will be possible for the generalist to continue to provide cradle-to-grave care. Where the generalist is physically located will be less relevant than how accessible the generalist is and how adept the generalist is at accessing information and interpreting it for a particular person at a particular time in their own unique context. The future generalist will need to incorporate the essential dimensions of generalism explicitly rather than implicitly into their practice.

The generalist is central to the re-assembly of the DNA fragments, the risk ratios and diagnostic outputs and interpretation of their meaning in the light of the whole person, whom they know as an individual. The more steps, people and processes that are put into medical care, the increased need for the generalist function to synthesise and maintain coherence, to protect the human-human interaction (albeit in new forms) and to be the guardian of whole-person care. Of critical importance is maintaining generalism's balance between the biotechnical and biographical needs in the context of new scientific, medical and technological advances.

## Key points

- There has been a global revival of interest in generalism.
- Debate is emerging on how generalism might adapt to the scientific and technological advances of the future.
- An opportunity exists for generalists to shape their future role and professional identity that embraces change without threatening the important essential elements of generalism.

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