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Operationalising generalism in medical education: a narrative review of international policy and mission documents

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ABSTRACT

Introduction: Despite moves across medical education to increase learning of generalist principles, a lack of clarity about what generalism means and how we should train doctors as 'generalists', has remained. This study explores how international, undergraduate and postgraduate, policy and educational mission documents characterise the practice and learning of generalism and how this can inform physician training.

Methods: A narrative literature review was conducted based on policy and mission documents identified through grey literature searches and a wider systematic review looking at empirical texts. Texts published between 1999 and present and related to 'generalism' were eligible for inclusion. Texts were coded and codes were reviewed and grouped into key themes.

Results: Thirty-four documents were included. Definitions vary: some described generalism as a basic skill, whilst others emphasised expertise. Factors which support learning generalism include: favourable financial outcomes; ageing populations; coordination of multidisciplinary care; demand for doctors with transferable skills; and patient expectations. Barriers to learning about generalism include: preference for specialisation; structure of undergraduate teaching and assessment; and the hidden curriculum. Solutions may include re-imagining generalists and specialists as being on a continuum as well as increasing exposure throughout medical education.

Discussion: Whilst generalism is consistently positioned as valuable, less clarity exists about how best to operationalise this in medical education. Fundamental ideological and structural changes within teaching curricula and assessment, are necessary to improve generalist learning and to promote sustainable practice. Medical education needs careful, considered planning to ensure workforce expertise is meeting population needs.

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Introduction

Since the 1800s, Western medicine has been structured with a predominant focus on disease-based knowledge and priorities [1]. This has supported increasing specialisation, sub-specialisation, and increasingly standardised approach to disease management. Reforms in undergraduate medical education, following the Flexner report, have mirrored this, with organisation of knowledge into academic and clinical curricula [2].

In clinical practice, primary care is often considered the cornerstone of generalist practice; however, primary care policy often prioritises disease-based care. For example, in the United Kingdom (UK), the QOF (Quality and Outcomes Framework), often rewards management of single disease [3] despite the fact

approximately half of patients seen in primary care live with multimorbidity [4]. In addition, the National Health Service (NHS) Long Term Plan encourages delegation of specific work to allied healthcare professionals, often in disease-based silos e.g. diabetes clinics [5]. Generalism is used in secondary care: secondary care patients often challenge uni-disease protocols, experience overlapping medical and social problems, and require careful prioritisation of treatments.

Health Education England's (HEE) 'Future Doctor' report [6], highlights a longstanding paradox, accentuated by the COVID-19 pandemic; despite ever-increasing specialisation, patients *need* generalists.

Generalism is increasingly recognised as key to undergraduate and postgraduate medical education.

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In the UK, following the Future Doctor report, HEE have recently developed seven ‘Enhance’ trailblazer pilots focusing upon implementing generalism into postgraduate training [7,8]. Likewise, undergraduate curricula are moving towards a more generalist approach [9]. The concept of ‘expert generalist practice’ is gaining traction [10,11]. However, there remains a lack of clarity about what generalism means and how we should train doctors as ‘generalists’.

Aim

This paper aims to explore how international undergraduate and postgraduate policy and educational mission documents characterise the practice and learning of generalism.

Research questions

- How is generalism characterised within included documents?
- How do documents describe the purpose and rationale of learning about generalism?
- What challenges are identified in the documents to support learning of generalism?
- How might these findings inform future physician training?

Method

Search strategy

Texts were identified within a search strategy used within another systematic mixed studies review which focused upon empirical studies [12] using Medline, Psycinfo, Socioindex, EMBASE, OVID Healthstar, Scopus and Web of Science. Search terms included ‘generalism’ and ‘generalist’. These terms were combined with ‘internal medicine’, ‘surgeon’, ‘paediatrics’, ‘psychiatry’. A sample search strategy is shown in Table 1 and the PRISMA flow diagram is included as a supplementary document. Within the other review of empirical studies [12], 16 policy and mission documents were excluded; these policy documents were included and focused upon within this review. Additional forward citation searches of included documents were undertaken, alongside a grey literature search using Google Scholar.

Texts were eligible for inclusion if they were policy or mission documents, relevant to medical education, published between 1999–present. Searches were limited to the English language, due to resource limitations.

Table 1. Sample search strategy.

1. Generalism*.tw,kf. (292)
2. generalist*.tw,kf. (8524)
3. 1 or 2 (8686)
4. general practice/or family practice/(73 124)
5. Internal Medicine/(17 299)
6. General Surgery/(37 803)
7. Psychiatry/(38 399)
8. Pediatrics/(51 048)
9. (“general practice*” or “family practice*” or “family medicine”).tw,kf. (56 709)
10. “internal medicine*”.tw,kf. (23 076)
11. “general surgery”.tw,kf. (10 266)
12. psychiatry.tw,kf. (52 000)
13. (pediatrics or paediatrics).tw,kf. (40 002)
14. Physicians, Family/(16 003)
15. physician*.tw,kf. (367 836)
16. (doctor or doctors).tw,kf. (114 122)
17. surgeon*.tw,kf. (183 634)
18. “general practitioner*”.tw,kf. (47 513)
19. psychiatrist*.tw,kf. (23 800)
20. (pediatrician or paediatrists).tw,kf. (5610)
21. 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 (927725)
22. 3 and 21 (2348)
23. limit 22 to english language (2115)
24. limit 23 to yr="1999–2019" (1431)

Sample search strategy for Ovid MEDLINE.

Analysis

A thematic approach was used. A data extraction table was piloted by MF, then modified and used by NC and AR to identify any text related to ‘generalism’. Data was analysed both deductively, to directly address the research questions, and inductively, to iteratively identify key emergent themes, and commonalities, dissonance and gaps across the data.

Results

Thirty-four documents were included; see Table 2. Twenty were from the United Kingdom, five from Canada, four from the United States of America (U.S.A.), one from Sweden and four were international collaborations with more than one country of origin. Further details regarding the countries of origin are given in Table 2. Two documents were dated pre-2010, with the vast majority, 32, published between 2010 and 2020.

How is Generalism characterised within included documents?

A range of key principles underlying ‘generalism’ were identified (Figure 1); first point of contact [13–16], forming relationships with patients [9,13,17], ability to deal with undifferentiated cases [13,14,16,18–20], providing preventative services [21], chronic disease care [21], ability to deal with complex patients and multimorbidity [6,13–15,19,22], adaptable and responsive to

societal needs [6,13,14,16,19,22,23] and patient advocacy [6,19].

The Independent Commission (2011) defined generalism by what it is *not*; *not* a synonym for general practice; *not* simply first-contact care; and *not* purely good doctoring. They highlighted the patient perspective; stating, ‘unless the patient benefits there is no justification [for generalism]’ [13]. Despite this, only seven documents have been written with patients as stakeholders or contributors [5,6,15,17,23–25].

The Royal College of Physicians and Surgeons of Canada (2013) described generalist physicians as willing to reach across gaps within healthcare, developing their practice to meet community needs and refraining from narrowing their practice. Strongly aiming to dispel the myth that ‘a generalist is a dilettante who knows a little bit about a lot but nothing in depth’, stating, ‘a generalist knows more about the common diseases than most specialists. In fact, their knowledge base is broad and integrative so that they can apply their skills to the complex comorbidities of their patients’ [19]. This is echoed by the Royal College of General Practitioners (RCGP), who stated that generalism is an ‘expertise’; involving ‘the development of a number of advanced professional skills’ [17]. The House of Commons Report (2015–16) goes even further to describe being a generalist as one of the hardest jobs in medicine [20].

The King’s Fund (2011) drew attention to the link with community needs, stating a ‘true generalist looks beyond the surgery door’ [24]. They, and later RCGP in 2012, contextualise this not only within general practice, but also other generalist specialities; for example, paediatrics, elderly medicine and psychiatry [14,24]. The RCGP describe generalism as ‘one facet of medical professionalism’; suggesting generalism is a fluid, case-specific concept influenced by training, retention of skills and the setting [18]. HEE reiterated this stating generalists make ‘context-specific decisions on how and at what level to consider a problem’ [9].

The Global Independent Commission (2021) highlighted how the practice of generalism differs internationally; they described generalism in high-income countries as a ‘basic’ set of skills for clinicians [26]. They highlight an imperative for generalism in low- and middle-income countries, in order to direct service provision and disseminate sustainable technology; for example, medication or vaccinations [26]. Implementation of generalism according to local and contextual factors can be described as ‘situated practice’.

The universal importance of generalism is clear, however greater clarity is needed to map the range of ways in which generalism is described and understood, to inform how and when to implement generalist clinical education. Some call for a universal, working definition of ‘generalism’ however, unsurprisingly, an agreement has not been reached [14].

How do documents describe the purpose and rationale of learning about generalism?

A fundamental theme is the ageing population and increasing number of patients with multiple and complex conditions in the UK, U.S.A. and Canada as drivers towards more generalist care [5,6,18,25–35]. The King’s Fund described general practice as the ‘heart’ of this movement [24]. Others suggest the ‘ideal scenario’ as a backbone of a generalist medical workforce working collaboratively with more specialised disciplines [14,16].

HEE in 2020 have described generalism as ‘essential’ during the COVID-19 pandemic: referencing redeployment of doctors and the requirement for rapid upskilling and transferable, generalist skills. They highlighted the negative physical and mental impacts the pandemic has had and the importance of approaching this through a generalist lens [6]. Some organisations equate generalism with basic, or transferable skills [25], which can be used by all doctors working in any speciality or if a dynamic response is required (as with the pandemic).

Medical generalism has been described as a ‘hugely important’ factor to determine the coordination and delivery of integrated health and social care in the UK [17], the U.S.A. [34] and worldwide [22,26]. The NHS Long Term Plan states: ‘We want to accelerate the shift from a dominance of highly specialised roles to a better balance with more generalist ones’ [5].

Some suggest generalism garners favourable financial outcomes. In 2006, the importance of general practice specifically was mentioned to avoid fragmented, over-specialised, poorer quality and more costly care [36]. Later, medical generalism was deemed to be a ‘key tool’ to overcome a squeeze in funding when clinical demand was rising [18].

Increased patient expectations are proposed as a driver to improve generalist care [13,26,27]. However, some paradoxical perspectives have been reported for example, patients requesting specialists over generalists whilst wanting holistic care [16]. The Postgraduate Medical Education Collaborative Governance Council

Table 2. Included documents.

Organisation	Title	Authors/stakeholders/contributors	Year	Country
Academy of Medical Educators	Excellence in Medical Education: Shaping the Future Medical Workforce	Medical Educators/Clinicians	2014	UK
Academy of Medical Sciences (AMS)	Addressing the global challenge of multimorbidity: Lessons from BRICS Countries	AMS, Experts in healthcare/academia/ research organisation leaders from across the BRICS countries (Brazil, Russia, India, China and South Africa). Pharmaceutical industry, World Health Organisation, attendees at policy workshop in London	2017	Brazil, Russia, India, China and South Africa
Academy of Royal Colleges	Shape of Training Mapping Exercise	Postgraduate training leaders, NHS, GMC, multiple specialities	2016	UK
American Academy of Family Physicians (AAFP)	Family Physician Workforce Reform	Members/2006 Congress attendees	2006	U.S.A.
American College of Physicians	The Impending Collapse of Primary Care Medicine and its Implications for the State of the Nation's Health Care	Members	2006	U.S.A.
Association of Faculties of Medicine of Canada (AFMC)	The Future of Medical Education in Canada (FMEC): A Collective Vision for MD Education	Association of Faculties of Medicine of Canada as well as Deans, Undergraduate Deans, Steering Committee, Blue Ribbon Panel, Environmental Scan research team, Data Needs and Access Group, Young Leaders' Forum, Task Force on Implementation Strategy, and dozens of colleagues in the UK, US, Australia and New Zealand	2010	Canada
College of Graduate Medical Education	Advancing Primary Care: Twentieth Report	Members	2010	U.S.A.
Council of Academic Family Medicine (CAFM)	The Four Pillars for Primary Care Physician Workforce Reform	American Primary Care Research Group	2014	U.S.A.
Future of Medical Education in Canada (FMEC)	Generalism in Postgraduate Medical Education	Medical experts and educators	2011	Canada
General Medical Council (GMC)	State of medical education and practice in the UK	Doctors, patients (survey/interviews)	2019	UK
Global Independent Commission	Health Professionals for a new century: transforming education to strengthen health systems in an interdependent world	Professional and academic leaders from diverse countries	2010	International collaboration: U.S.A., Pakistan, UK, Bangladesh, Peru, China, South Africa, Canada, India, Uganda, Lebanon
Health Education England (HEE)	Broadening the foundation programme	Experts in healthcare, managers, medical educators	2014	UK
Health Education England (HEE)	By choice - not by chance	HEE, MSC, BMA, junior doctors, SACP and RCGP, staff and students at 5 medical schools	2016	UK
Health Education England (HEE)	The Future Doctor Programme: a co-created vision for the future clinical team	Medical/other healthcare professionals, patients, carers, service providers, regulators and charities, professional membership bodies	2020	UK
House of Commons Health Committee	Primary Care Fourth Report of Session 2015–2016	Health Committee, health care experts, leaders, postgraduate training leaders, medical educators, pharmaceutical experts, charities	2015–16	UK
Independent Commission for RCGP and Health Foundation	Guiding Patients Through Complexity: Modern Medical Generalism	Members of the commission, informed by evidence-gathering sessions, visits to 2 GP practices and a professor of primary care and head of Netherlands institute for health services research	2011	UK
Independent review	Shape of Training: Securing the future of excellent patient care	expert advisory group, patients, medical students, doctors in training, trainers, employers and organisations involved in delivering training	2013	UK

(Continued)

Table 2. (Continued).

Organisation	Title	Authors/stakeholders/contributors	Year	Country
Joint Royal Colleges of Physicians Training Board (JRCPTB)	Shape of Training: Response to the Academy of Medical Royal Colleges mapping exercise	JRCPTB, trainee doctors, medical specialist board in London, medical educators, postgraduate deans	2015	UK
Kings Fund	Improving the Quality of Care in General Practice	Independent inquiry: input from GPs, other GP professionals, managers, patients and the public	2011	UK
NHS England	Five Year Forward View	NHS leadership	2014	UK
NHS England	NHS Long Term Plan	Patient groups, professional bodies, frontline NHS leaders	2019	UK
Postgraduate Medical Education Collaborative Governance Council	Report on Generalism in Postgraduate Medical Education	Generalism Working Group	2018	Canada
Royal College of General Practice (RCGP)	Medical Generalism: Why expertise in whole person medicine matters	RCGP, other GPs, members, academics, other professions and organisations	2012	UK
Royal College of General Practice (RCGP)	Medical Generalism: Impact Report	RCGP	2013	UK
Royal College of General Practice (RCGP)	The 2022 GP: A vision for General Practice in the future NHS	RCGP, healthcare experts, professional bodies, members of the public, patient groups and other stakeholders.	2013	UK
Royal College of Paediatrics and Child Health (RCPCH)	NHS Long Term Plan - A summary of child health proposals	RCPCH, patients and the public	2019	UK
Royal College of Physicians and Surgeons of Canada (RCPSC)	Report of the Generalism and Generalist Task Force	RCPSC, experts from healthcare/ leaders and consensus conference on generalism in medicine	2013	Canada
Royal College of Physicians and Surgeons of Canada (RCPSC)	Competence by Design: Reshaping Canadian Medical Education	Fellows	2014	Canada
Royal College Physicians (RCP)	Comment on Commission on Generalism Report: Modern Medical Generalism	RCP	2011	UK
Royal College Physicians (RCP)	Future Hospital: caring for medical patients	Experts from health/social care, patients	2013	UK
UK Shape of Training Steering Group	UK Shape of Training Steering Group: Report	Representatives from British Medical Association, General Medical Council, Health Education England, The Four UK Departments of Health, NHS Education for Scotland, Wales deanery, Northern Ireland Medical and Dental Training Agency, Academy of Medical Royal Colleges (and their training group), Medical Student Council, Chair of the UK conference of postgraduate medical deans, NHS employers, patient forum	2017	UK
WHO	A Vision for Primary Health Care in the 21st Century	WHO, UNICEF, International Advisory Group on Primary Health Care, public consultations, international experts	2018	International collaboration conducted by WHO
WHO	Declaration on Primary Health Care	Heads of State and Government, ministers and representatives of States and Governments participating in the Global Conference on Primary Health Care: From Alma-Ata towards universal health coverage and the Sustainable Development Goals	2018	International collaboration conducted by WHO
WHO	Reform of the Medical Curriculum in Sweden	A professor of medicine and former president of the Swedish Society of Medicine	2018	Sweden

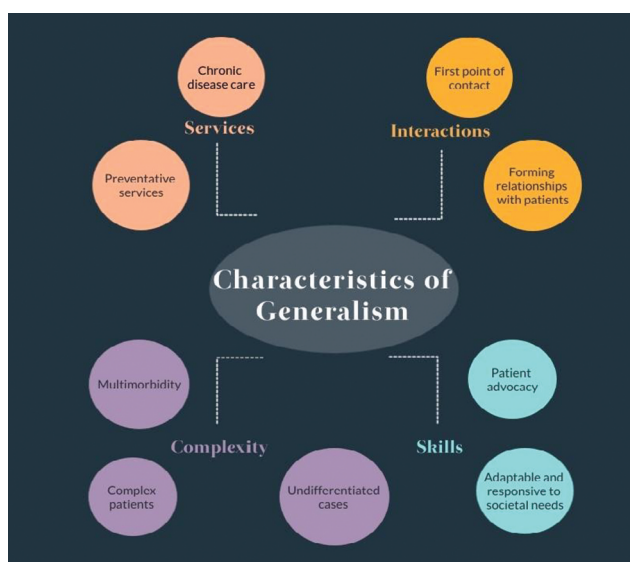


Figure 1. Characteristics of generalism.

(PMECGC) suggests a robust public education programme regarding the role and value of generalists [16].

What challenges are identified in the documents to support learning of generalism?

Learning about generalism

In 2011, Professor Sir Denis Pereira Gray highlighted the complexity and expertise required to learn how to do generalism well: 'It is extraordinary ... we are seriously saying that the generalist job needs a lot less training than the specialist job. Medicine is the only subject in the world where the study of the whole gets less attention than the study of the part' [13].

The challenge of reversing – or stabilising – the trend towards specialism is referenced by the Royal College of Physicians and Surgeons of Canada (RCPSC). 'Generalism seems to be a concept that is in direct opposition to the trend, from time immemorial, in most domains of human endeavour toward increasing specialisation. It will be a challenge to reverse, let alone stabilise, this trend' [37]. This explains some of the difficulties in promoting learning about generalism.

Hidden curriculum

One pervasive challenge is differing attitudes towards generalism and specialised disciplines within the medical community. The Independent Commission for RCGP and Health Foundation stated there has been '... a specialist drift in patient expectations that goes along with the specialist drift that we see in career

aspirations and opportunities, and one feeds the other. Undoubtedly, specialism is viewed within the medical profession as the route to acclaim, prominence and the richest rewards in terms of esteem' [13]. However, the discourse is changing, for example, with the Royal College of Physicians' statement that 'Excellent generalist care must be valued as much as specialist treatment' [37].

The lack of visible generalist role models and faculty members is considered in some texts as a contributory factor [14,16,35,38]. In 2014, RCPSC stated that generalists in university settings tend to teach rather than research and are less likely to achieve publication or grant awards [38]. Furthermore, variation in integration of primary care teaching and research activities across UK universities will influence the explicit visibility and exposure of academic primary care for students [9].

While many documents describe the importance of generalist skills and training [17,39,40], undergraduate curricula and assessments remain focussed on speciality or disease-based blocks. The need to 'make a fundamental shift in medical education from a system that places disproportionate value on specialism to one that recognises crucial value in generalist training' was reiterated by HEE in 2020 [6].

Shifts in discourse can create opportunities for structural change, for example, rewards for provision of teaching in general practice were brought in line with provisions for teaching in UK hospital settings [9]. This would enable better access to teaching by generalists, and demonstrate that both forms of teaching are valued equally.

Generalists and specialists: de-polarising

In 2011, the Independent Commission suggested that labelling doctors as either 'generalists' or 'specialists' is 'unhelpful and misleading', and can contribute to the devaluation of generalism. They proposed we should 'see all doctors as being on a continuum from pure generalism to pure specialism, with the overwhelming majority at points in between' [13].

The RCPSC stated in 2013, 'Recognising that the philosophy of generalism applies to all physicians and surgeons regardless of their scope of practice, participants recommended integrating the values of generalism into medical education for every physician' [19]. Some roles will have less opportunity to practise generalism on a day-to-day basis, however, will still need to appreciate when and how it should be applied, to collaborate effectively with colleagues in clinical care and education.

Changes to the language we use has been suggested for some time. In 2010, the College of Graduate Medical Education (CGME) described primary care physicians as ‘general internists’, ‘general paediatricians’ and ‘family physicians’ [21]. Despite this, the narrative of two distinct entities has persisted – with documents referring to the balance of ‘generalists’ and ‘specialists’ [14–16,24,27,28,30]. In the UK, there has been demand from royal colleges and the British Medical Association (BMA) as well as the General Medical Council, for General Practitioners to be added to the specialist register, to counteract this divide [41].

How might these findings inform future physician training?

Undergraduate education

Many documents recommend increased exposure to generalist practice; for example, by increasing opportunities for students to experience undifferentiated patients [14,39] and early presentation of illness [25], a move towards community-engaged medical education [16] and extending clinical placements under an umbrella of generalism – in hospital and community settings [25].

One example of these recommendations in action is included in Figure 2. In undergraduate curricula in Sweden reforms have been made ‘in response to changing needs in patients, rising incidence and prevalence of chronic diseases and multimorbidity; the proliferation of new knowledge and technologies, changing practice environments and new understandings of pedagogy’ [42]. Whilst outcomes of these changes are yet unknown, this is the earliest published adoption of generalist reforms to undergraduate curricula in practice.

Postgraduate education

Since 2005, doctors in the UK have undergone two years of foundation training prior to specialising. The RCP (2011) stated doctors should ‘gain experience in a range of care settings in order to develop a broad base of skills’. Following demand for a mandatory General Practice rotation from 2003 onwards [13,18], a community or integrated placement became mandatory for Foundation Year 2 trainees [30]. The impact of this has not been reported. HEE in the UK is creating ‘generalist schools’; with the aim of developing a workforce in response to local needs [6]. The first pilot was launched in the East of England deanery in 2022, with new foundation posts themed around generalism [7]. Extended training programmes in UK General Practice have also been proposed [13,17]. This aims to both increase exposure to generalist practice, as well as garner prestige [18].

In North America, a re-design of residency programmes has been proposed increasing exposure to generalist practitioners [14]. Canada has proposed a rebalancing of residency positions to respond to human resource needs and a requirement for all residents to evidence generalist competencies [19].

Generalist workforce

Differential power hierarchies are highlighted as a key factor sustaining the dominance and desirability of specialisms. The Independent Commission for RCGP and Health Foundation argue ‘no amount of reform of training systems will have a lasting impact upon the numbers and calibre of generalist doctors if specialism is still considered the way to be more prestigious’ [13]. Documents suggest flat career structure within community settings [13] and the financial advantages of a more specialised discipline

Case study of Sweden (WHO, 2018):

Background

The traditional environment of academic hospitals did not fulfil training needs. Plans for reform were made from 2013 with multiple stakeholders.

Intervention

Redefinition of competencies, and emphasis on competency-based training and generalist skills. Definition of learning strategies: interprofessional learning, greater focus on communication and, for undergraduates, more time in outpatient/primary care settings (practice-based learning).

Impact

All medical faculties have embarked on these changes, including the introduction of new topics such as people-centred care and use of information technology. They are working on developing quality indicators.

Figure 2. Case study of Sweden curricula change.

[36], with greater involvement in private practice [18] as well as higher levels of recognition, training and access to resources [22] may be contributing to the desirability of specialist careers.

Some recommend changes to exposure, inspiration, and recruitment at both undergraduate and postgraduate levels, to maintain and develop a generalist workforce [17]. The American Primary Care Research Group summarises ‘Four Pillars of Focus’ (2014); pipeline – recruiting and retaining students; process of medical education – exposure to excellent and inspiring role models and responding to hidden curriculum; practice transformation – generalist physician leaders as role models; and payment reform [35].

Discussion

All of the identified policy documents position generalism as being valuable, however, these have resulted in minimal change. This review highlights the importance of attending to existing powerful hegemonies in healthcare, which position disease-based and compartmentalised knowledge at the forefront of system structures, rather than enabling more fluid and person-centred approaches to delivery of healthcare and clinical education.

Included documents universally support generalism: evolving from the focus on primary care into all specialities. However, there remains a paradox in how generalism is described and implemented in practice. Some portray generalism as a basic foundation of broad-based training before going on to develop ‘expertise’ in another speciality. Whilst others describe ‘generalist expertise’, involving knowledge across disciplines; knowledge across workforce groups; ability to integrate and implement knowledge dependent upon patient, situation and contexts.

There seems to be an assumption that generalist knowledge is needed because it forms a good foundation. This may hinder learning of generalist principles, as it adds to the denigration of generalism by detracting from real clinical and academic challenges. Lawson & Kumar [43] highlight this in their analysis of the Wass report [9]. Thus, statements about the importance of generalist skills must be worded carefully to highlight the breadth and depth of expertise generalism requires.

Part of the challenge is that the skills and proficiency required are difficult, and indeed counter-productive, to understand and articulate as well-defined compartments of knowledge. Generalism is therefore difficult to shoe-horn into existing structures, without fundamental reform in teaching and assessment. Similarly, it is vulnerable to reductionism if standardised

(terminology, recommendations etc.), perhaps undermining inclusion and integration into policy and training. The inability to condense the concept of generalism into a working definition is because there is no ‘universal’ generalism.

It is important to recognise that generalism within modern healthcare exists on a spectrum. Whilst some describe generalism as being stratified into basic and expert generalism, for example, Reeve’s and Byng’s ‘United Model of Generalism’ [44], we advocate for an appreciation of a spectrum of generalism and therefore ways to implement this embedding approaches and delivery of clinical care and education. We propose that ‘Good’ generalism is different for each patient encounter: as situated, contextualised clinical practice. We are not trying to propose a standardised solution internationally. Rather we acknowledge that generalism will be done differently depending on the healthcare system, professional workforce, and levels of individual patient-clinician interaction.

Increasing exposure to generalism at both undergraduate and postgraduate levels is frequently proposed as a solution to these complex challenges, in the context of increasing demand for generalist clinicians to meet healthcare needs [45]. Capturing the outcomes of these efforts is likely to be resource intensive and complex. UK foundation training, for example, has included a rotation in either a community or general practice setting since 2017; but examining the nature of this ‘intervention’ and its potential impact(s) is challenging, and yet to be achieved. Outcomes of HEE’s UK generalism schools will take time to materialise and any evaluation will be inherently difficult.

Any system-level change requires addressing multifactorial challenges, such as cultural and structural barriers. The RCGP argues that increased exposure to generalism is futile if we do not change attitudes. Many of the barriers in supporting learning of generalism are implicit. Suggestions from the literature include increasing exposure to role models and increasing financial rewards for generalist practitioners and educators. Public education programmes are touted as solutions, but these must be done carefully and avoid blaming patients.

Additionally, it is important to ensure increased generalist teaching is not delivered in such a way that students feel the choice of career is enforced, rather than students naturally considering generalist disciplines as valuable career choices. The distinction between general practice and generalism across disciplines is important [43].

The terminology we use shapes how we think. Attending to the language that is used is important; polarised language such as ‘generalists’ and ‘specialists’ can perpetuate competition, and tribalism. It may be

more beneficial to shift the focus away from being a 'specialist' and towards differences and commonalities in knowledge and expertise.

The recurrent calls for generalism in practice highlight the lack of large scale implementation. There is a need for future mission and policy documents to examine and consider structural barriers and ways to facilitate implementation of generalism, beyond a recognition that it is important.

Gaps in the literature

Assessment is a key gap within the identified literature. Generalists often make decisions which are best for 'that person at that time', rather than a one-size-fits-all approach. Written exams tend to prioritise discrete, codified facts, rather than the more complex and flexible implementation of knowledge used by generalists. In addition, generalism is often described in terms of behaviours, such as 'being adaptable', which are difficult to assess within standardised frameworks.

Additionally, the voice of patients is conspicuously absent, despite the independent commission (2011) stating there was no point in pursuing generalism if not benefiting patients. Only 7 (21%) of these documents have been written with patients as stakeholders or contributors. It is difficult to make changes which are truly meaningful for patients without eliciting their views.

Strengths and limitations

This review includes a broad selection of texts from cross-disciplinary, international perspectives. Thematic analysis was used to highlight commonalities and dissonances across texts about generalism and being a generalist. This review provides a timely analysis in relation to current plans for generalist learning across UK postgraduate training. Allied HCPs are increasingly working with generalist physicians in clinical settings. There is potential for these findings to inform cross-disciplinary working and training, to maximise the positive development of future approaches and ways of working. This review contributes to the understanding of both historical and current perspectives of generalism at a time that generalism in medical education is gaining traction; we consolidate messages to formulate key recommendations for practice and policy on support and sustainability of generalist training.

This review is focused on Western, English speaking policy and mission documents. The use of 'generalism' and 'generalist' key words may have missed descriptors of other relevant principles, and may explain why documents relating to 'emergency medicine' or other relevant fields were not identified.

Additionally, we did not include documents focussed upon allied healthcare professionals. Moving forwards, it is important to consider the impact that wider society and the media have on the perception of generalists and medical curricula. Inclusion of documents from these sources could help inform methods of changing public perception and make the findings more relevant outside of healthcare professionals too.

Conclusions

This review demonstrates how the generalist debate has remained constant over time. Generalism is valued, but little exists within these documents to inform operationalisation or implementation of generalism *in practice*. If generalism is to be truly encouraged and developed, we must recognise the need to develop more in-depth work around how to implement generalism into practice and clinical education, alongside addressing some of the perpetuating organisational structures which have inhibited implementation of generalism to date.

There is rapid expansion of medical schools and medical student numbers in the UK at present. This provides an opportunity to review how we can best teach generalism going forwards, in new and exciting ways. Crucial questions include: the feasibility of existing interventions/developments; impact on the workforce and direction and scope of assessments in both undergraduate and postgraduate settings.

Without fundamental structural and ideological changes, the introduction and sustainability of generalism will remain suboptimal. Organisations representing primary and secondary care physicians need to establish their priorities together. Public education campaigns and involvement are crucial. Medical schools and postgraduate training, particularly in the context of rapid expansion of medical student numbers in the UK, need to be carefully planned in order to embed generalist principles and knowledge, to ensure workforce expertise addresses population needs and ultimately, achieves the best outcomes for patients. Ongoing research and evaluation will be essential.

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As this was a literature review of publicly available documents, no ethical approval was necessary.

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