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Characterising Generalism in Clinical Practice: a systematic mixed studies review protocol

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Abstract

Background Generalist physician care is associated with improved patient outcomes. Despite initiatives to promote generalism in educational settings, recruitment to generalist disciplines remains less than required to serve societal needs. Increasingly this impacts not just general practice but generalist specialties such as internal medicine, surgery and pediatrics. One potential factor for this deficit is a lack of explicit attention to generalism as a praxis, including clarifying key aspects of generalist expertise.

Aim To examine empirical clinical literature on generalism and characterise how generalism is described and delivered by physicians in primary and secondary care.

Design & Setting Systematic mixed studies review including quantitative, qualitative, mixed-methods studies and systematic reviews of physician generalist practice.

Method Medline, Psycinfo, Socioindex, EMBASE, OVID Healthstar, Scopus, Web of Science will be searched for English language studies from 1999 to present, using a structured search. Given study heterogeneity we will not perform quality appraisal. Two reviewers will perform study selection for each study. Data extraction will focus on how generalism is defined and characterised, including the clinical care provided by generalists and patient experiences of generalist care. Quantitative and qualitative data will be summarised in tabular and narrative form. Convergent synthesis design will then be used to synthesise quantitative and qualitative data.

Conclusion Findings will characterise generalism and generalist practice from a grass-roots clinical perspective. By identifying similarities and differences across generalist disciplines, this work will inform more focused educational initiatives on generalism at undergraduate and postgraduate level, including collaborations between generalist disciplines.

Key words: General Practice; Family Medicine, General Practitioner, Family Physician, Generalism, Generalists, Primary Care, Secondary care, Physicians

How this fits in

Despite advocacy for generalism by professional bodies, recruitment to generalist specialties is low. One potential reason is a lack of clarity on key features of generalism and how they overlap or potentially differ across disciplines. Understanding how generalism is characterised in the clinical physician literature offer insights into how generalism is practiced in different clinical disciplines. This information can be used to tailor educational initiatives to promote generalist skill sets.

Introduction

Background and rationale

A robust workforce of generalist practitioners is described as 'the backbone' or 'cornerstone' of health systems, which enables effective delivery of healthcare when working collaboratively with specialist colleagues.[1,2] Benefits of having more generalist practitioners include improved patient health outcomes, and efficient cost-effective healthcare systems.[3,4] Yet recruitment into generalist specialties in many developed countries, including the US, UK and Canada is less than anticipated to meet societal health care needs.[5–7]

Professional bodies have repeatedly endorsed training in generalism across the specialties[2,8–11] and equipping graduates with a generalist skill-base is a key target outcome at an undergraduate level.[12,13] Health systems have also established targets and programmes to attempt to increase the number of generalist-trained doctors, such as the NHS Long Term Plan in the UK,[14] which emphasises both the need to develop generalist skills as well as specifically aiming for more general practitioners (GPs). In Canada there is an expectation that at least 40% of graduates will enter family medicine[6] while in the UK, Health Education England (HEE) have mandated that 50% of graduates should enter general practice training.[15] Yet despite multiple efforts in both countries at undergraduate and postgraduate level to support these targets, recruitment is still less than required to meet system needs. In the US, which has traditionally relied more heavily on a specialist workforce, recruitment into generalist specialties, such as general internal medicine, is also less than anticipated to meet population needs.[16]

A key difficulty educating about generalism is the concept itself. Different disciplines offer varying definitions for generalism and emphasise different characteristics of generalist practice.[2,6] Learners may experience generalist practice in a range of clinical disciplines but there is rarely explicit attention to the underpinning constructs or skills that constitute generalism. Traditional portrayals of generalist practice frequently focus on general practice (or family medicine), yet there is also a growing emphasis on generalism in specialty disciplines, which increasingly differentiate between 'generalist' specialties (e.g. internal medicine, surgery, pediatrics) and subspecialty practices. Thus, there is a growing awareness that *generalist* practice is not limited to general practice but instead can – and needs to – be practised across medical disciplines.[1,14]

Aim

To develop curricula which concretely promote generalism and inform patient care, we propose a need to more clearly articulate and characterise generalism and generalist practice. The aim of this review is to identify, describe and synthesise characteristics of generalism as practised by physicians in the clinical literature. Our hypothesis is that by starting at 'grass roots' level, we will be able to ascertain areas of overlap and difference in how different disciplines conceptualise generalism and describe 'doing' generalism.

Methods

Search strategy

Systematic searches will be conducted in Medline, Psycinfo, Socioindex, EMBASE, OVID Healthstar, Scopus and Web of Science. Search terms will include 'generalism', generalist' and terms representing general practice. To ensure representation from generalist specialty disciplines, we will also combine generalism search terms with 'internal medicine', 'surgeon', 'paediatrics', 'psychiatry". The detailed search strategy is provided in Table 1. The final search will be reported using the PRISMA flowchart.[17]

Study selection criteria

Studies from all countries will be eligible, however only studies in the English language published between 1999–present will be included. Any empirical study design that uses primary and secondary evidence (quantitative, qualitative, mixed-methods and systematic reviews) will be included. Conceptual papers, policy papers, conference abstracts, theses, books, general discussion or letters will be excluded; however, they may be used to identify related studies. Forward citation searches and hand-searching the references of relevant documents will also be undertaken.

Screening and data extraction

Study titles and abstracts will be reviewed for eligibility independently and in duplicate by two reviewers. If insufficient information is available to determine suitability, the full-text will be retrieved. Disagreements regarding inclusion will be resolved by discussion with the research team. A data extraction form will be piloted and adapted as required. Data extraction processes will be standardised between members by comparison and discussion. Key study information will include: study title; name of first author; year of publication; country of study; study type (qualitative, quantitative, mixed methods studies, review); study context (primary, secondary care, a mixture of both); study population; study aim; and key findings (outcomes), including patient experiences. Introduction and discussion sections of included papers will be examined for definitions of generalism and text describing generalism.

Quality appraisal and data synthesis

A wide range of critical appraisal tools have been developed in recent years to assess mixed methods research, including systematic mixed methods reviews.[18] Despite this, consensus on how best to evaluate study quality for mixed-methods studies is lacking, particularly in relation to qualitative studies included in mixed methods reviews.[19–21] Quality appraisal is usually conducted to check the trustworthiness of individual studies in a review and whether the quality may impact review findings;[20] In this SMSR the focus is not on the findings of each study

per se, but rather to generate a better understanding of how generalism is articulated in clinical practice. To maximise the range and breadth of included papers, methodological quality of included studies will not be assessed.[22] Study characteristics will be tabulated and described using descriptive statistics, then transformed into textual categories. Template analysis used to integrate and explore relationships in the data.[23,24] Central to the technique is the development of a coding template, which is then applied to data, and revised as necessary. The initial template will be devised based on *a priori* concepts of generalism commonly found in the literature, such as patient-centred care, broad knowledge base, collaboration, continuity, complexity.[1,10,25–27] This template will be applied tentatively to a subset of data, then refined, including adding new themes as identified. Findings will be aggregated using a convergent design approach, whereby all data are analysed using the same synthesis method and presented together in a joint display (see figure 1). Joint displays of data in health sciences mixed methods research enable a visual means by which new insights and inferences from integration of the data are possible.[28]

Patient and public involvement

To ensure attention to patient perspectives, a sub-set of studies which include patient participants will be identified. Patient characteristics, the nature of patient experiences reported and engagement with generalist health services will be synthesised. Patients will be invited to comment on review findings.

Amendments

Any amendments to this protocol will be documented and reported in the final manuscript.

Dissemination

The results of this review will be published in a peer review journal and disseminated in various media, including presentations at generalist clinical and medical education conferences and through research group websites. We will also invite input from a patient experience group to inform dissemination to public audiences

Discussion

Summary

While generalist practice is endorsed by professional bodies and health care policy, recruitment into generalist disciplines is less than required to deliver high quality patient care. This is no longer a challenge for general practice alone, but increasingly one encountered in generalist specialist disciplines. Generalism and general practice are not synonymous[7]but likely represent a continuum where different disciplines emphasise different aspects of generalism. This study

aims to review and synthesise key features of generalism as characterised in the clinical literature, with a view to mapping areas of overlap and variance in the practice of generalism.

Strengths and limitations

Strengths of this review include its broad search, and use of a mixed methods approach to include all relevant empirical study designs to produce insights greater than reported with quantitative and qualitative findings are separated.[22,29–32] Studies from all countries are eligible for inclusion and our international team includes learners, researchers and clinicians which will promote critical discussions on our interpretations. A limitation of this protocol is that our team is composed of physicians and researchers based in general practice. Our focus on physician practice only, generalists also include other healthcare professionals such as nurse practitioners; as such, future work that investigates the articulation of generalism in other healthcare professionals may provide complementary insights.

Comparison with existing literature

A number of reviews of generalism are reported in professional statements on generalism,[1,2,10,23,33,34] but these are not reported as systematic reviews, available in the public literature. While we have identified one scoping review on generalism in family medicine,[35] this is confined to rural medicine. As far as we are aware no cross disciplinary review on generalism is available.

Implications for research and practice

The findings of this review will allow for more elaborated articulation of generalism, resulting in increased clarity on key features of generalism in practice across disciplines, as well identifying areas of similarity and difference across different disciplines. This data can be used to develop more refined and targeted curricula for learners at undergraduate and postgraduate level. In addition, focusing on patient characteristics and experiences may offer new insights into how generalism should evolve to maximise patient benefit and embed user perspectives in healthcare.

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Ethical approval

Not required

Competing interests

None

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Figure 1: Overview of data extraction and synthesis

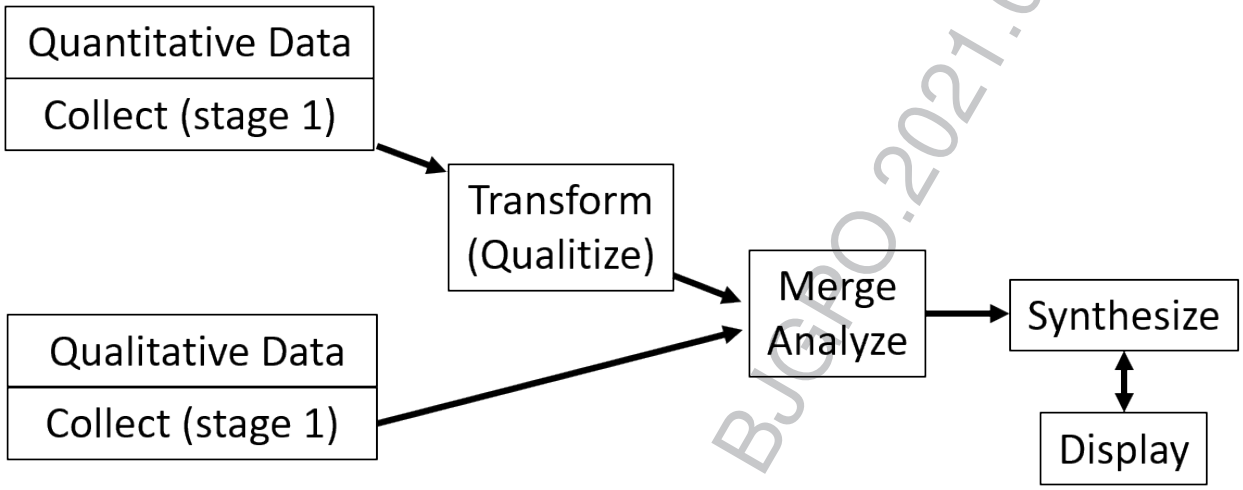

Table 1: Sample search strategy for Ovid Medline

1	generalism*.tw,kf. (292)
2	generalist*.tw,kf. (8524)
3	1 or 2 (8686)
4	general practice/ or family practice/ (73124)
5	Internal Medicine/ (17299)
6	General Surgery/ (37803)
7	Psychiatry/ (38399)
8	Pediatrics/ (51048)
9	("general practice*" or "family practice*" or "family medicine").tw,kf. (56709)
10	"internal medicine*".tw,kf. (23076)
11	"general surgery".tw,kf. (10266)
12	psychiatry.tw,kf. (52000)
13	(pediatrics or paediatrics).tw,kf. (40002)
14	Physicians, Family/ (16003)
15	physician*.tw,kf. (367836)
16	(doctor or doctors).tw,kf. (114122)
17	surgeon*.tw,kf. (183634)
18	"general practitioner*".tw,kf. (47513)
19	psychiatrist*.tw,kf. (23800)
20	(pediatrician or paediatrians).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)