

BACKGROUND PAPER

The Research Agenda for General Practice/Family Medicine and Primary Health Care in Europe. Part 1. Background and methodology¹

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Abstract

At the WONCA Europe conference 2009 the recently published 'Research Agenda for General Practice/Family Medicine and Primary Health Care in Europe' was presented. The Research Agenda is a background paper and reference manual for GPs/family doctors, researchers and policy makers, providing advocacy of general practice/family medicine GP/FM in Europe. The Research Agenda summarizes the evidence relating to the core competencies and characteristics of the WONCA Europe definition of GP/FM, and its meaning for researchers and policy makers. Evidence gaps and research needs are pointed out to provide a basis for planning research for which there is a need and for action that may influence health and research policy, i.e. applying/lobbying for research funds. WONCA Europe and its associated networks and special interest groups could consider the agenda's research priorities when planning future conferences, courses, or projects, and for funding purposes. *The European Journal of General Practice* will publish a series of articles based on this document. In this first article, background, objectives, methodology and relevant literature are discussed. In subsequent articles, the results will be presented.

Key words: *General practice/family medicine, research agenda*

The European General Practice Research Network (EGPRN, www.egprn.org) recently published their 'Research Agenda for General Practice/Family Medicine and Primary Health Care in Europe' and presented it at the WONCA Europe conference in Basel in September 2009 (1). The Research Agenda was developed upon request of WONCA Europe, using both a systematic methodology and expertise from

many European countries. It could also serve as a reference paper worldwide, as no such documents exist for other WONCA regions yet. The Research

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Agenda intends to complement the EURACT Teaching Agenda (2), which addresses academic and vocational training.

The *European Journal of General Practice* will publish a series of articles based on this document. In this first article, objectives, background, methodology and relevant literature are discussed.

Background

General practice/family medicine is the core discipline of primary medical care and the cornerstone of many healthcare systems in Europe. It's potential is large: the large majority of European citizens have a general practitioner (GP) and regular contact with him or her. In healthcare systems where the GP acts as a gate keeper, 90–95% of all patient complaints remain in long time primary care (even when specialists are temporarily involved). Of all reasons for encounter, 80% can definitely be solved in primary care (3,4).

In 2002, a European definition of general practice/family medicine was published, and revised in 2005. It informs policy makers, funding organisations and others outside the field about the essential role of family medicine within health systems at both national and pan-European levels, and intends to guide the agendas for teaching, research and quality assurance in GP/FM in Europe (5,6). The definition describes eleven essential characteristics of the discipline and translates them into six core competencies (Figure 1).

General practice/family medicine and primary health care play an important role in the functioning of the whole system of healthcare, which was only

recently emphasized by WHO and several reviews (7–12). Starfield has shown that the strength of a country's primary care system is inversely associated with all-cause mortality, all-cause premature mortality and cause-specific premature mortality from asthma and bronchitis, emphysema and pneumonia, cardiovascular disease and heart disease (13–15). Strong primary care systems and practice characteristics, such as geographic regulation, continuity of care over time, coordination and community orientation are correlated with improved population health, and primary care (in contrast to specialist care) is associated with a more equitable distribution of health in populations (16,17). A gatekeeper role of the GP is seen to be an important cost-control measure and prevents harm due to unnecessary hospitalization and over-investigation (18).

Most of these papers refer to primary health care as being delivered by a cooperating multi-professional team, coordinated by GPs. This teamwork concept, however, is not yet implemented fully in all European countries, where forms of organisation vary a lot. Whereas GPs in some countries have patients registered at their practice and the doctors perform a gate-keeping function, thus exclusively ensuring primary medical care, in other countries primary care is a territory which is debated between GPs and multiple community based specialists that patients can access on their own initiative. Nurses work as part of a primary health care team in some countries, or as independent or community nurses in others. Research labelled as primary health care research, consequently, has been conducted in general practice settings as well as in nursing and sometimes also within

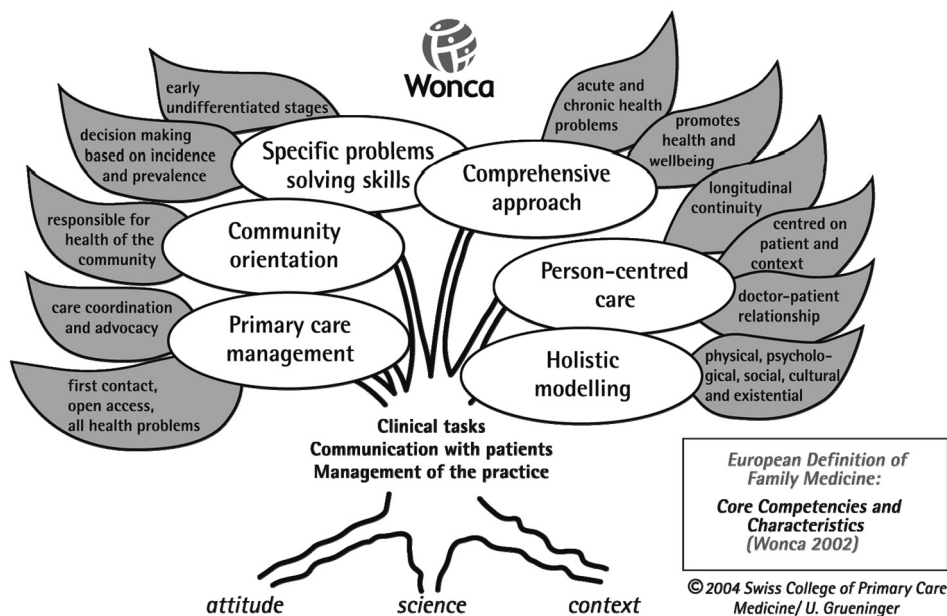


Figure 1. The WONCA tree: Core competencies and characteristics of general practice/family medicine.

community specialist settings or within other health-care professions. The focus of the research agenda, however, is primary care delivered by GPs and multi-professional practice teams coordinated by them.

General practice research has reached different stages of professionalization and capacity in different European countries. It was first developed in those (mainly north-western European) countries that have built their health care systems on the principles of generalist-based access to the more specialized levels of health care ('gate-keeper', 'referral'). Countries where GPs work in parallel with other community based specialists found that the academic establishment and, therefore, the ability to research in general practice settings was more difficult to initiate and develop. The general pattern is that individual pioneers perform practice-based research and obtain degrees (stage 1), then gradually academic chairs focussing on medical education are installed (stage 2), and finally, more extensive research projects are developed through which further research capacity can be built (stage 3). Currently, European countries show various stages of development of general practice research capacity: countries where academic family medicine is virtually non-existent (stage 1), countries where university departments of family medicine are mainly involved in medical education (stage 2), and countries where—clinical or health services—research in general practice is developing (stages 2–3) (19,20).

General practice research has been a subject of animated discussion in recent years (21–23). Some authors have even questioned whether GP/FM research has any future. Many others pointed out that most clinical and preventive care is delivered in primary care and needs to be underpinned by appropriate evidence. They also emphasize that GP/FM research enhances the role of GPs in health care systems, and improves the effectiveness and efficiency of health care services as well as the health of populations (24,25).

The European definition of GP/FM has been important in shaping the discipline, outlining its content and research domains and its role for the twenty-first century. However, to date, it had not been lined systematically with research evidence (26). The objectives of developing the research agenda were to provide guidance for further research and policy, and advocacy of GP/FM in Europe (Table I).

Methodology

Starting points

The basis for the European Research Agenda were the prerequisites, needs and priorities of European

Table I. Aims and objectives of the 'Research Agenda for General Practice/Family Medicine and Primary Health Care in Europe'.

The research agenda is a reference paper

- Summarizing the existing evidence on aspects of the definition of GP/FM and related tasks of GPs, and its meaning for researchers and policy makers.
- Appraising the methodology used in current GP/FM research.
- Highlighting research needs and evidence gaps, i.e. for the purpose of research planning and funding or for funding decisions.
- Providing a basis for proactive, positive action thereby influencing health and research policy, i.e. applying/lobbying for research funds.
- Indicating issues of imminent importance for countries with a low capacity for research in view of a development plan for GP/FM research in a start-up setting.

GP research as reflected by several key informant surveys and SWOT analyses on research needs and perceived barriers, in particular an initial EGPRN national representatives' workshop (20), and the semi-structured annual reports of the EGPRN national representatives. Additionally, all abstracts presented in EGPRN conferences from 2001–2007 were classified for theme and methodology, thus giving an overview of research activity of European GPs presenting in EGPRN (WONCA Europe abstracts could not be classified likewise, as they are neither published in a scientific journal nor archived systematically) (27).

Framework for literature review

The Research Agenda authors then performed a comprehensive literature review of GP/FM research, starting from the domain of general practice in Europe as described in the six core competencies (and the 11 characteristics) of the WONCA Definition (Figure 1) (5). A second perspective was formed by the core areas of GP/FM research, summarized as: (a) clinical research (with outcomes at a patient level, measuring patients' health issues including function or quality of life); (b) health services research (focussing on doctor or system related questions and outcomes); and (c) research on education and teaching in general practice (20,25). Adequate research methodology was added as a fourth area. These areas were then superposed to the core competencies to form a virtual grid of research domains. Challenges for primary care which were not mentioned in the original document of the WONCA Definition but of potential importance for future GP/FM were added to the research domains and topics to be searched (i.e. the application of genomic knowledge in preventive and

therapeutic health care, medico-ethical and medico-legal implications, and the use and potential of electronic medical records or information technology).

Additionally, a rough semi-quantitative overview of research themes was performed in order to identify well-covered topics and blank spots. This was achieved by searching PubMed for RCTs or clinical trials labelled with the MeSH term 'family practice' or 'general practice', and published since 2003. These were then classified according to clinical or disease-related or else system related/public health theme groups.

Literature review related to core competencies

Each research domain related to a core competency was reviewed by a subgroup of the author team. They searched PubMed using MeSH terms related to the core competencies or specific sub-fields (for details see the appendices of the full text version, and the subsequent articles of this series), mostly crossed with 'family practice', 'general practice' or 'primary health care'.

Several strategies were used to extend searches where findings were either scarce or a domain seemed poorly covered:

- Keywords of relevant studies for each core competency were retrieved in addition to MeSH terms and included into the searches.
- All related MeSH terms for each entry term (or key word) were identified and included in the search strategy.
- MeSH terms of relevant articles were used for further searches, and 'explode' searches for related articles of relevant papers.
- In some instances, searches were not limited to articles labelled with 'family practice', 'general practice' or 'primary health care' in order to extend coverage of the domain.
- This mainly applied to the research domains of primary care management, comprehensive approach, community orientation, holistic approach, and some subchapters of specific problem solving (genetics, chronic care, disease management programmes).

In domains with a large volume of references, additional filters were used and reviews limited to meta-analyses, systematic reviews, clinical trials or randomized controlled trials (RCTs), thus excluding editorials, unsystematic reviews or opinion papers. Articles which were only related to nursing (and not to general practice) were also excluded. This mainly applied to the research domains focussed on person-centred care and partly to specific problem solving, namely diagnosis, therapy, and quality of care related

research. Literature searches were mostly limited to English and to some extent French, German, or Dutch language papers. All articles identified through the searches were initially screened by title and abstract, and selected if having a well defined research question, appropriate methodology and setting, as well as clearly presented, consistent results, and if the study was considered relevant for European general practice/primary care. Selected abstracts were compared to the domain descriptions and the methodologies used. Abstracts and full text articles were then reviewed and methodology, results, and conclusions from the texts compiled. Landmark articles were identified if present.

Each author group then summarized its results with regard to the research domains and concepts. Existing evidence on competencies and related research questions was identified and summarized, as well as the type of study and methods/instruments used. Conclusions were drawn after reflection and repeated small group discussion until consensus was reached. Subsequently, missing evidence and research gaps were identified by comparing the search results to the particular domain description, both in small group and plenary author group discussions. Results and conclusions were then compiled in separate chapters for each research domain and core competency, each comprising a definition of the domain and a summary overview of the literature review, and point out research aims and needs as well as appropriate methodologies. They will be presented in the next articles of this series.

The whole author team iteratively discussed search strategies, their findings and resulting summaries and conclusions, in order to consent the Research Agenda. Preliminary and full results of the whole process were presented and discussed in various workshops and council or executive meetings at several WONCA Europe and EGPRN conferences. A draft version had been made available on the internet and feedback on a draft version was sought from office holders of WONCA and its networks, national colleges of GP/FM and other European opinion leaders in GP/FM. All feedback was discussed and incorporated into the final document.

Discussion of the methodology

The Research Agenda utilized the European definition of GP/FM to provide information on the current state of the evidence and research needs related to it. The outcomes, i.e. the proposed research priorities together with appropriate methodologies for their study, should be applicable in most European countries and possibly also countries outside Europe, if aspects of research capacity are taken into account.

The six core competencies of the European Definition were chosen to structure the literature review and the text of the Research Agenda as an original approach to evidence. Nevertheless, this framework is not the only possible way to structure an agenda and it might be considered unusual. There is a considerable difference between this approach and the way research develops normally. When planning research projects, topics are usually chosen locally with regard to local interests, specific questions and incentives. An alternative structure, implying different literature search strategies based on individual research questions (for example, on management of a disease, or effectiveness of a defined preventive intervention, or comparing national healthcare systems), would have given more detailed or in-depth results on the individual question. However, it would have been impossible to cover the entire field of GP/FM this way. Additionally, each chosen approach would have presupposed a certain view of the discipline, which would probably not be equally acceptable or relevant everywhere in Europe. The European Definition is generally accepted, summarizes the essentials of the discipline and thus provided a feasible and relevant framework.

This Research Agenda is mainly based on a comprehensive literature review. PubMed was used as the primary search engine; other literature databases, such as Embase and ERIC were not searched systematically. This approach excluded many national GP/FM journals. However, the author team was multinational and drew on their expertise and overview of local and grey literature. To select and appraise the literature for all domains, the authors did neither use a systematic quality appraisal checklist nor a fully identical procedure. This simply was not feasible or appropriate. However, generally acknowledged criteria were applied to select and appraise research papers, as described in peer review procedures of research journals, or literature on critical appraisal. Search procedures, appraisals and summaries were reviewed and discussed several times by various members of the author team until consensus was reached.

Discussion of other literature on research in GP/FM

In 1966, McWhinney described the research domain of family medicine for the first time. It featured the epidemiology of illness in primary care, clinical aspects such as the evaluation of symptoms, diagnostic signs or tests and psychosocial aspects (28). In the following decades, clinical strategies and a focus on the family were added to this agenda, as well as research on educational methods, health services and policy related studies (29–33). Early in the 1990s,

the importance of researching the patient's perspective in addition to the doctor's view was emphasized, as well as the relationship between the family doctor and the patient and his or her family. The family physicians' responsibility towards the community was also highlighted (34,35).

Since 2000, a number of opinion articles and some research papers have contributed to the discussion. Several experts have called for a research agenda in order to clarify and prioritise research needs in GP/FM (20,25), and to provide the specific contribution of GP/FM to medicine as a science (26), and to health services and policy (36–38).

Some articles evaluated specific or local situations. US researchers studied the position of GP/FM researchers compared to other specialties when applying for research grants (39,40), or research capacity as reflected by trainees or faculty of US family medicine departments (41,42). The output of UK programmes to promote GP/FM research was also evaluated (43,44). Social conditions and policy in developing countries were reviewed (45,46), as well as research needs concerning rural practice (27).

The aims, content and expected outcomes of GP/FM research have been considered in a more general perspective by international experts in the field, i.e. during the WONCA Research Conference in Kingston, Ontario, in 2003, and its published reports (26,25, 37,38,46,48–53), as well as some subsequent articles (54,55). The historical development of research and research agendas has been reviewed (35,53). All of these papers define infrastructural requirements and highlight the importance of GP/FM and related research for health services and health policy. They point out that the contribution of high quality GP/FM—led primary care is essential for an effective healthcare system and that stakeholders increasingly recognize this fact.

Results of GP/FM research inform policy makers on how evidence-based healthcare can be delivered in a sustainable, cost-effective and equitable way, and thus underpin social and ethical decision making in order to improve health globally. It helps to bridge the gap between fundamental biomedical or clinical research and the delivery of care to a general population, and forms a link between medical research and the humanistic sciences. In order to achieve this, funding should be adequate and directed at research projects which meet patients' needs, address conditions which contribute significantly to a populations' burden of illness, and consider factors which influence the implementation of results. International professional organisations or scientific societies have a role as clearing houses providing databases of information, access to research instruments and in facilitating training and networking of researchers. It is generally

acknowledged that GP/FM needs to increase its research capacity and several papers focus on how to achieve this, mostly at a system level (38,50,52,54), or with regard to the development of networks of research practices (25,43,46,51,56).

Several articles have attempted to draw up research agendas by suggesting themes that are perceived as particularly important. In fact, some so-called research agendas are in fact limited to very specific topics or areas of research, for example unexplained symptoms (57), health services in rural areas (47), primary care informatics (58), mental health (59), or choice of GP/FM as a career (60). Other review papers have a wider, more general perspective; many, including the Kingston papers, were written by renowned international experts. However, none had a systematic approach or used a predefined thematic framework, and none linked methodologies to research themes. Nevertheless, some papers stated that using a wide range of methodologies, including approaches initially developed by disciplines other than medicine, is essential for GP/FM research, and is one of its strengths (26).

Implications

The research agenda summarizes the evidence relating to the core competencies and characteristics of the WONCA Europe Definition of GP/FM, and its meaning for researchers and policy makers. Evidence gaps and research needs are pointed out to provide a basis for planning research for which there is a need and for action that may influence health and research policy, i.e. applying or lobbying for research funds. The Research Agenda enables WONCA Europe and its associated networks and special interest groups to reconsider the evidence base for the definition, and review their positions and statements if necessary. Since the document is open to amendments, the authors welcome further discussion.

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Full text versions of the research agenda

Electronic versions (pdf) are available from: www.egprn.org

Paper versions can be requested from the Coordinating Centre of EGPRN, Mrs Hanny Prick. E-mail: hanny.prick@hag.unimaas.nl

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