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Is a practice-based rural research network feasible in Europe?

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TITLE: Is a practice-based rural research network feasible in Europe?

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Practice-based rural research network

ABSTRACT

Research in family medicine is a well-established entity nationally and internationally, covering all aspects of primary care including remote and isolated practices. However, due to limited capacity and resources in rural family medicine, its potential is not fully exploited yet.

An idea to foster European rural primary care research by establishing a practice-based research network has been recently put forward by several members of the European Rural and Isolated Practitioners Association (EURIPA) and the European General Practice Research Network (EGPRN). Two workshops on why and how to design a practice-based research network among rural family practices in Europe were conducted at two international meetings. This paper revisits the definition of practice-based research in family medicine, reflects on the current situation in Europe regarding the research in rural family practice, and discusses a rationale for practice-based research in rural family medicine. A SWOT analysis was used as the main tool to analyse the current situation in Europe regarding the research in rural family practice at both meetings.

The key messages gained from these meetings may be employed by the Wonca Working Party on research, the International Federation of Primary Care research Network and the EGPRN that seek to introduce a practice-based research approach. The cooperation and

collaboration between EURIPA and EGPRN creates a fertile ground to further discuss the prospect of a European practice based rural family medicine research network, and to draw on the joint experience.

Keywords: research, rural population, community network, primary health care, quality improvement

Key messages

Family medicine research has evolved to become a continuously developing global entity.

The impact of research in rural family medicine is currently not fully exploited.

The cooperation between EURIPA and EGPRN creates a fertile ground to further discuss the prospect of a European practice based rural family medicine research network.

INTRODUCTION

Background

Research, an essential part of family medicine, provides the evidence for the management of chronic diseases, as well as a way to identify high-risk groups and individuals (1, 2). It also helps to answer relevant questions, recruit representative populations, and acknowledge the diversity of contexts in which primary care practitioners serve (3). It enables the evidence-based management of patients in family medicine, facilitates the development of guidelines as well as the rational use of diagnostic tests. It contributes to quality improvement, strengthens the role of family medicine in health care systems, optimizes the effectiveness of health care systems, improves the health of the population and may lower costs of health care delivery (4-7).

Strengthening family medicine research

In 2003, the World Organization of Family Physicians (Wonca) organized an international conference on how to get family medicine research started as a global activity and responsibility. This conference put forward several recommendations for fostering research in family medicine, including the need to include remote and isolated areas into research, the importance of connecting the primary care to the prevailing local communities and to link every community-based physician with the research community (8). This means that every family practice (rural and urban) should be involved in research. As a result of this conference and especially the rural research needs featured, the ALPHA (Analysing Longitudinal Population-based HIV/AIDS data in Africa) network has been established as an example of a practice-based research network involving every community-based physician (9-11).

In 2010 and 2011, a series of papers were published in the European Journal of General Practice by the European General Practice Research Network (EGPRN) comprehensively addressing research in family medicine (12-17). These papers emphasized the need for a prioritization of spearheads to guide primary care research for the next decade: translational research, research on equity and health differences, on chronic disease and health systems research (17).

Practice-based research networks in family medicine

According to the definition by the Agency for Healthcare Research and Quality, practice-based research networks (PBRNs) *“are groups of primary care clinicians and practices working together to answer community-based health care questions and translate research findings into practice”*, while they *“engage clinicians in quality improvement activities and an evidence-based culture in primary care practice to improve the health of populations”* (18).

PBRNs have already proved to be both a place and a concept. As a place, they are laboratories for quality surveillance and research, by meeting the population health needs which assists the family physicians in their responsibility to improve frontline clinical care (19). Therefore, PBRNs are essential for continuous quality improvement in primary care.

In the last few decades, family medicine research has made notable progress, focusing on different aspects of primary care such as public health issues, quality and clinical topics (20).

Practice-based research in family medicine is an important tool and vehicle to gain new knowledge by means and by outcomes of the family medicine practice (21). It offers the essential information for evidence-based family medicine (22) and as such represents the impetus for quality improvement. Practice-based research in family medicine started in the 1970's in Europe and Australia and provided evidence that family physicians could generate clinically significant and scientifically sound data (22). In Europe, PBRNs in primary care

emerged in the 90s in Belgium (23) and extensively continued in the United Kingdom and the Netherlands (24, 25). Moreover, there are primary care PBRNs that have been set up in some other European countries (26-30). There are some positive examples of practice-based research networks in rural areas of selected European countries (31-34). These enable the study of primary care problems as well as the process of continuing quality improvement within primary care settings (29). It enables every family physician to take a proactive role in developing the overall discipline of family medicine (22).

Practice-based research networks in rural family medicine

All presented good practices of PBRNs and success in international primary care research point to the need to translating them to rural family medicine research. As already shown above, the rural research is already a part of research in family medicine. However, it is mostly unstructured and dispersed. (35). Namely, rural areas have received limited financial support, which is further escalated by the current financial austerity that now more than ever has reduced research capacity in family practice and primary care (36). The place of residence and geographical factors play a role in the assessment of health status, health care utilization, and health service deficits, adequacy of health care and health-related behaviours (37). As expected, residents of rural areas are being increasingly identified as people at risk of health disparities (38). Rural family medicine provides the need for a broader and deeper clinical knowledge, including many clinical skills; the necessity to develop a different way of thinking and organising knowledge; a more socially oriented, patient-centred model of care; community expectations of social roles; and the personal cost of being a rural physician (39). By studying these topics, the research in rural areas would provide a unique and deeper insight into family medicine practice and therefore rural family medicine cannot be left behind. High quality practice-based rural primary care

research is crucial to improving health outcomes in rural communities (40). It would enable us to fully exploit the potentials of rural family medicine research and provide high quality research results relevant for clinical practice.

Therefore, the aim of this article was to present one approach based on consensus meetings to research in rural family medicine which would foster its greater visibility and enrich the overall research in family medicine. First, we reflected on the current situation in Europe in regards to the research in rural family practice with a focus on PBRNs. A SWOT analysis was utilised to highlight the rationale for the practice-based research in rural family medicine in Europe, while experiences and networking activities gained in certain European rural family medicine settings have been used as examples of best practices in order to gain certain insights on that subject. Finally, a perspective on why and how to design a practice-based research network among rural family practices in Europe is outlined.

ASSESSING THE NEED OF PRACTICE-BASED RESEARCH IN RURAL FAMILY MEDICINE IN EUROPE

EURIPA (European Rural and Isolated Practitioners Association) is a Wonca Europe network that promotes development, research, education, quality improvement and dissemination of good practice in rural health (41). EURIPA considers research as an essential element of rural practice to close the gaps in knowledge, meet and cover the population health care needs and promote future rural health policies. EGPRN is also a Wonca Europe network aimed at promoting and uniting primary care practice, family medicine clinical research, and academic family medicine (42). It published the aforementioned series of publications on research in family medicine (12-17). Based on the efforts and suggestion by EGPRN and on the recommendation from Wonca (8), strengthening the practice-based research in rural family medicine was the focus of both European networks as they decided to explore this subject in two joint meetings, the first in Malta (October 2013) and the last at the Wonca Europe conference in Lisbon (July 2014). Their main purpose was to discuss current opportunities and means to establish a practice-based research network covering rural family practices in Europe.

At the joint meeting of EURIPA and EGPRN in October 2013 in Malta, a workshop entitled “Reporting Rural Health Care Research: a focus on content and research methods” was held. Family medicine experts representing EURIPA and EGPRN participated in this workshop. The key questions discussed during this workshop were presenting health care research priorities in rural settings, suggestions on overcoming barriers in implementing family practice research in rural settings and exploring funding and intersectional collaboration in rural family practice research. The workshop’s main aim was to discuss and answer the question

“do we need practice-based research in rural family medicine in Europe”. The workshop’s participants addressed this question with SWOT methodology and finally agreed that practice-based research in rural family medicine in Europe is needed (Box 1).

EXPERIENCES GAINED FROM SELECTED RURAL EUROPEAN REGIONS – LESSONS LEARNED AND THE JOINT ROLE OF EURIPA AND EGPRN

At the Wonca Europe conference in Lisbon in 2014, a second joint EURIPA/EGPRN workshop entitled “Developing practice-based research networks in rural Europe: the joint work between EURIPA/EGPRN” has been carried-out. During this workshop, additional issues relevant to PBRN have been highlighted and certain experiences gained from several European settings in terms of rural practice-based research were presented. The key issues discussed in this workshop are shortly presented below.

A rural setting is well suited to study selected Wonca competencies including community orientation, person-centred care and a holistic approach (43). Models of after-hours services are changing leaving remote physicians alone with the burden of these services (34), especially in periods of financial austerity as is the case today, and it is a challenging topic when practice-based research is discussed. New models of an interdisciplinary collaborative practice approach to healthcare delivery that are emerging in rural areas (44) were also discussed during this workshop. Rural residence itself has proven to be a risk factor for obesity (45), diabetes (46), and cardiovascular diseases (47). Rural family medicine also presents a good opportunity to explore equity of care and the effects of an economic crisis on patient management.

An efficient way to translate the research into practice in rural settings should be found in order to ensure that the evidence-based medicine is practiced in patients’ everyday care, and the PBRNs would provide an ideal opportunity for this. In the USA and in Australia, there are many examples of rural PBRNs (29, 48). It seems that PBRNs provide an important laboratory to encourage collaborative research partnerships between academicians and

practices or communities to improve population health, conduct comparative effectiveness and patient-centred outcomes research, and study health policy reform (48).

In Europe, no international PBRNs in rural family medicine have been established yet. One national successful example is the Cretan Practice Based Research Network. It consists of 18 family physicians working in primary health care settings in rural areas on Crete, Greece. The network has monthly meetings and was recently endorsed by the 7th Health Region of Crete. The network is very active and has produced many research results (31-33, 49). In many European countries, research in rural family medicine is quickly developing. The research examples from Crete, Greece prove that practice-based research in rural settings is both possible and feasible. For example, studies on anaemia (32), upper gastrointestinal endoscopy for dyspepsia (31), and herpes zoster (33) have been conducted and published in respected scientific journals. In Italy, a study on the most frequent reasons for encounters for flu-like symptoms in family practice is currently being conducted. In Slovenia, the studies on rural family physician profiles, on self-medication in rural areas and on the use of ultrasound in after-hours care are currently being conducted. In France, the following projects are being conducted in rural settings: transmitting photos of retina from family physicians to ophthalmologist to analyse and prevent diabetic retinopathy use of echography by rural family physicians, with new materials that are less expensive and can transmit findings, and trainees in rural practice sponsored by regional authorities. In Poland, researchers focused on quality of life and health behaviour of chronically ill rural patients (50, 51) and health care quality in rural settings (patient satisfaction and quality as well as quantity of health care services) (52).

Following the success story from Crete, this may be the time to focus our energy on developing a European practice based rural family medicine research network. There are

two successful organizations (networks) which could take the leading role: EGPRN and EURIPA. Both are well positioned to establish such a network. Its purpose could be to share best practices, demonstrate the current state of the matter, improve rural health care equity between countries, standardise terminology, use of common electronic platforms etc. However, the establishment of such a network requires a lot of preparation and careful consideration. For this purpose, the aforementioned second joint EURIPA/EGPRN workshop in Lisbon attempted to respond to the question *“to what extent a PBRN in family medicine is feasible in Europe and which is the role of EURIPA and EGPRN”*. The consensus of the participants in this workshop as a SWOT format is illustrated in the Box 2.

For implementing a successful PBRN in a rural setting, the workshop’s participants approved the five core features model known as the “5C wheel”: common purpose, cooperative structure, critical mass, collective intelligence and community building (53).

CONCLUSIONS

The cooperation and collaboration between EURIPA and EGPRN outlined the strengths, weaknesses, opportunities and threats to developing a PBRN in a rural setting in Europe. The rural PBRN could serve not only as a research network but also as peer group stimulating continuous professional development on the basis of research results and quality improvement. Finally, rural PBRN could present a possibility to advocate for family medicine thus stimulating rural health policy.

The close working relationship between the two European networks creates a fertile ground from which to discuss the prospect of a European practice based rural family medicine research network, and to draw upon that joint experience. This document comes to add to the EGPRN Research Agenda and the commentaries that have been published in series in the EJGP (12-17) and they show future directions for primary care research. It may have also an impact on the work that it is undertaking by the WONCA Working Party on research and the International Federation of Primary Care Research Network. It also endorses the epilogue of the Series Papers that also rural family medicine research needs «... *the development and maintenance of a solid research infrastructure: easily maintained and accessed observational databases, helpful information technology, strategies and techniques for patient involvement, advanced research training possibilities, and the development and validation of appropriate research instruments and outcome measures to capture the different challenges.*» (17).

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Box 1: Do we need a practice-based research in rural family medicine in Europe – a SWOT analysis

Strengths

- High research capacities of rural family physicians
- Unique research topics possible to study only in rural settings
- Real life patients
- Large demand for research activities and career opportunities by undergraduates, postgraduates and young researchers
- Growing number of PhD students in rural settings
- Structured network (EURIPA)

Weaknesses

- Rural family physicians are less prone to research
- Rural family physicians underestimate their research capacities
- Lack of time, high workload
- Isolation (lack of network between GPs in rural settings)
- Lack of specific academic recognition
- Poor self-esteem

Opportunities

- Establishing an European practice-based research network
- Participate in international proposal calls
- Collaboration between EURIPA and EGPRN
- Setting up a specific research agenda linked with EGPRN
- Implementing a sentinel system for calls for European and WHO research projects

Threats

- Limited primary health care-oriented funding opportunities (lack of funds devoted to rural settings, lack of capacity in applying for funds)
- A need for leadership and cooperation with senior researchers

Box 2: To what extent a PBRN in family medicine is feasible in Europe and which is the role of EURIPA and EGPRN – a SWOT analysis

Strengths

- The support of both EURIPA and EGPRN
- Many rural family physicians with research interests and skills
- A successful example from Crete
- Enough research ideas and material

Weaknesses

- Research capacity unequally distributed among European countries
- Many countries have no experience with practice based research networks
- Lack of local rural networks

Opportunities

- The use of IT in networking
- Raising the quality of patients' care
- Leadership in rural research
- Influence on policy makers including funds distributions

Threats

- Lack of funding and ability as well as experience in applying for funding
- Quality control (based on research results) used by the authorities for penalties on health care providers
- Lack of enthusiasm