

## Building a primary care research network – lessons to learn

Primary care research is a necessary prerequisite if we are to enhance the role of family physicians in health care systems, facilitate the optimal functioning of those health care systems, and to improve the health of populations [1]. The European General Practice Research agenda has defined that primary care research must involve context-relevant studies within realistic primary health care settings [2].

Successful research requires resources and advice to support clinicians. Methodological, interpersonal, and organizational skills are likewise necessary [3,4]. In the absence of an established infrastructure for research, the inclusion of patients in studies can be time-consuming and challenging.

Primary care research could be enhanced by building sustainable networks and increasing research capacity [2,5]. In the network of practices, data collection is facilitated through the support of contributing colleagues. The rate of publication increase has been more rapid in countries with established research networks, such as in Scotland [4,6]. The research networks in the UK have been able to simultaneously sustain both large-scale collaborative and small-scale personally developed projects [7]. Research courses could be a successful tool in networking between participants and encouraging primary care research [5].

In addition to high-quality multi-centre studies, networking can help build relationships between researchers, enhance research activities, as well as lay down infrastructure for further studies. It has already been highlighted that practice-based research networks (PBRN) can serve as learning communities and engines for improving primary care delivery systems [8,9]. Moreover, the links between academic units, universities, and practices are strengthened through research networks.

In the United Kingdom, the first PBRNs were established already in the late 1960s [9,10]. In the 1980s, the first structured networks were implemented to provide expert support, resources, and training for local primary care staff. The networks in the UK were initially funded by local authorities, but since the 1990s, funding has also come from government. The mid-2000s saw the focus shift to supporting large-scale clinical trials in order to enhance research that meets the priorities of the NHS and the Department of Health, with practices acting mainly as research hosts [11]. Clinical research is conducted through the UK Clinical Research Network (UKCRN), which consists of topic-specific networks and primary care research networks (PCRN) from around the

UK [10]. In Canada, PBRNs are organized under the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), which has created a common database for chronic diseases and neurological conditions [9].

The successful Scottish PCRNs have benefited from the commitment of long-term funding, while they have also enabled researchers to integrate into the larger UK networks [4]. The greatest challenge in the Scottish context is a shortage of primary care academics who are able to generate study questions that attract external peer-reviewed support [4].

In Finland, there is no long-standing tradition of broad-based PCRNs, although there have been some small-scale local PBRNs [12]. However, in 2015, through the funding of Pirkanmaa Hospital District and the support of the Department of General Practice at the University of Tampere, the first PCRN (Tutka) that crossed the borders of hospital districts in Finland was founded. It currently involves 23 health centers and a research group of 15 GPs based around the country. The first study, focusing on the non-acute use of ECG in primary health care, has been carried out and infrastructure for future studies has been established.

The aims of the Tutka network include developing research activity and capacity by *learning by researching together*, by creating important research questions from the point of view of primary care health care professionals, by involving health centres in data collection, and by linking to external research projects. With the establishment of the Tutka network, the University of Tampere has provided a research course for GPs following the model of the University of Helsinki [5]. The greatest challenges facing Tutka include short-term funding and the lack of assisting research staff.

The Norwegian model for PCRNs includes local primary care networks, a network for oral health care, and a central steering committee. The model has been described previously in the editorial of this journal. A challenge in Norway is to source funding for the extra time given to research via a fee invoiced to the service health care system [13].

On the international level, the exchange of scientific knowledge and methodologies between researchers of different countries can also provide networking benefits. This process of mutual exchange between “experts” and “novices” enhances the development of academic GPs in countries that currently have relatively little infrastructure in this regard [2]. In Europe, the European General Practice Research Network (EGPRN) supports several

collaborative international research projects that focus, for example, on self-care for common colds by primary care patients or dementia management in primary care in European countries [14–17]. In Canada, a further stage in improving the interactive model of knowledge production and utilization has been called “linkage and exchange” [9,18]. Good-quality and useable research emerges from an ongoing relationship between researchers, research funders, and potential research users [9].

Local PBRNs work to support grassroots capacity-building in contextually relevant research, as well as working to foster communities of practice. National networks serve to support larger-scale research that engages senior researchers and addresses issues of national importance. In turn, international research networks could support the development of research activity in countries that currently have relatively little infrastructure.

Local and national research networks need not necessarily have identical aims. Local networks could base their work on stimulating research activity, while national networks could provide support for the national health care agenda. In the future, the local networks with similar interests could find each other and collaborate internationally, e.g. via an international PCRN register. In the end, the most important matter is to focus on relevant research questions in co-operation with colleagues, patients, and other stakeholders and to formulate responses that will deliver better health care.


## Disclosure statement

Tuomas Koskela is a research coordinator in Tutka Primary Care Research Network in Finland.

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