Excessive workload, uncertain career opportunities and lack of funding are important barriers to recruiting and retaining primary care medical researchers: a qualitative interview study

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\textbf{Background.} Research activity in primary care has been steadily increasing, but is still insufficient and more researchers are needed. Many initiatives have been launched to recruit and retain primary care researchers, but only little is known about barriers and facilitators to a research career in primary care.

\textbf{Objective.} To examine barriers and facilitators to recruiting and retaining primary care medical researchers.

\textbf{Methods.} Semi-structured interviews with 33 primary care medical researchers, all medical doctors. We used a phenomenological approach to analysing the interviews.

\textbf{Results.} Important barriers to pursuing a research career in primary care were heavy workload, isolation at work, short-term funding and low salary. Important facilitators to attracting and retaining primary care researchers were the desire and opportunity to improve primary care, the flexible working conditions, the career opportunities, including the possibility of combining university-based research with clinical work and a friendly and competent research environment.

\textbf{Conclusion.} Better strategies for recruiting and retaining researchers are a prerequisite for the development of primary care, and in future the main emphasis should be on working conditions, networking and mentoring. Studies including those primary care physicians who have chosen not to do research are highly needed.

\textbf{Keywords.} Academic, career choice, family practice, research, research personnel.

\textbf{Introduction}

The past decades have seen an increase in research activity in primary care, but it is still insufficient and more researchers are needed.\textsuperscript{1–3} General practice research combines methods from areas such as biomedicine, health services, public health and social sciences and is often characterized by interdisciplinary, patient-centred and community-based teamwork. Like other parts of the health care system, general practice care should be evidence based. However, most strategies for diagnosis and treatment have only been tested in hospital settings, focusing on other patient populations and not addressing the challenges in general practice: How do patients, families, communities and systems deal with health and illness, how do we improve doctor–patient communication and decision-making? How do we improve patient satisfaction, safety and outcomes? Hence, primary care interventions should be tested in a primary care and not a hospital setting.\textsuperscript{4}

In the past few years there has been an increased focus on the need to recruit and retain primary care researchers.\textsuperscript{5,7} In order to resuscitate clinical research, the Working Group of the Academy of Medical
Sciences has emphasized the need to further develop primary care research to facilitate large clinical trials, cohort studies and patient monitoring. It is therefore recommended to increase funding from all sources, to create a national network for clinical research that can help coordinate funding and research programmes, and to focus on better career and reward structures for clinical researchers. This is in line with the recommendations of the Society of Academic Primary Care to overcome the shortage of senior academic staff members in primary care, which is considered the bottleneck in further developments in primary care research.

Increasing the number of non-clinical academics may be a way of meeting the challenges to primary care research. Unfortunately, only few studies have been conducted on barriers and facilitators to a research career in primary care, and many initiatives to attract and retain medical researchers are based on assumptions rather than profound insight. Therefore, the aim of our study was to identify factors influencing the decision to follow a research career in primary care for medical researchers with or without clinical training.

Methods

We conducted qualitative interviews with 33 primary care medical researchers affiliated with the three Danish medical faculties in Odense, Aarhus and Copenhagen. The study was initiated by the Research Board of The Danish College of General Practitioners.

Sampling

We used maximum variety sampling followed by theoretical sampling. The informants came from three different places to ensure a broad range of personal, professional and demographic characteristics and to avoid bias due to possible regional differences. All were medical doctors. The sampling procedure was designed to ensure the widest possible diversity among informants in terms of sex, age, years since graduation, academic degree and clinical training (Table 1). As we did not know whether certain opinions were associated with special characteristics, we started with a large sample of more than half of the active and previously active researchers. Sampling was terminated when new interview themes stopped emerging.

Interview procedure

The interviews were conducted by the authors. At the time of the interviews, two of the interviewers (JLT, DJ) were PhD students, whereas JS was a senior researcher and chairman of the Research Committee of the Danish College of General Practitioners (JS is a specialist in general medicine and clinical pharmacology and is working as a part-time clinician). DJ was a full-time researcher with 18 months clinical training, and JLT was a full-time researcher on leave from a GP registrar appointment. One of the authors (JS) was experienced in qualitative research, and the other authors had completed courses in interview technique and analysis (DJ, JLT).

The interviews were based on a topic guide based on literature studies and further developed after each interview. The main themes, however, were the same through all the interviews. The main themes were recruitment for research, barriers and opportunities they had faced during their career, and suggestions for retention strategies.

In 2004, interviews were performed with open-ended questions, as recommended by Spradley, on the three medical faculties and at the annual national research workshop for general practice in Denmark. We presented ourselves as colleagues and researchers, and the informants were encouraged to speak freely and to raise issues of importance to them. Each interview lasted 45–90 minutes, and various ideas and issues were pursued as they emerged during the interviews, and the informants were also allowed to go beyond the themes.

Analysis

The interviews were audio-taped and fully transcribed. The authors independently analysed the interviews manually and subsequently compared and discussed the results. A phenomenological analysis approach was used to organize and interpret the text. All transcripts were read repeatedly to get an overall impression of the material and to identify relevant categories. Subsequently, all text units were coded and grouped into categories. The information in each category was condensed, compared with other categories and with each interview and core categories were identified.

Results

Baseline characteristics of informants appear from Table 1. All informants are medical doctors, 61% are specialists in general medicine and almost all the rest
Table 2  Important facilitators and barriers to recruiting and retaining primary care researchers

<table>
<thead>
<tr>
<th>Facilitating factors</th>
<th>Barriers</th>
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<tbody>
<tr>
<td>Acquisition of qualifications</td>
<td>Financial circumstances</td>
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<tr>
<td>Early research training</td>
<td>Job insecurity</td>
</tr>
<tr>
<td>Flexible working hours</td>
<td>Isolation during the research</td>
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<tr>
<td>Inspiring and friendly research environment</td>
<td>process</td>
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<tr>
<td>Interest in research</td>
<td>Heavy workload</td>
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<tr>
<td>Opportunity to contribute to improving primary care</td>
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<td>Part-time research</td>
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To increase the number of active researchers we suggest to:
- Develop strategies for mentoring and research networks
- Focus on research training of medical students and GP registrars
- Increase salaries and offer longer-term funding than at present
- Increase focus on the attractive research environment
- Establish more posts combining research and clinical work

are planning to become specialists in general medicine. Very few of the primary care researchers have chosen a non-clinical career.

The analysis showed that a strong desire to develop the general practice profession, the working conditions and career opportunities were the three primary reasons for entering and staying in primary care research (Table 2).

**Desire to develop the general practice profession, academic curiosity and career opportunities**

A large proportion of the informants had conducted some primary care research at medical school and emphasized that this was a good starting point for a research career. The prospects of contributing to improving primary health care and collaborating with influential people were strong incentives to continue primary care research both for researchers with and without clinical training: “What made me continue (with research) was the challenging environment of creative and resourceful people” (informant 25). Curiosity, intellectual challenge and the opportunity to become an expert in a field were stressed by all informants: “It was the chance to go in depth . . . that was exciting” (informant 26). The possibility of qualifying for an interesting job was another incentive: “Even though it is indeed hard work, being part of this team gives me the opportunity for future interesting posts” (informant 29). Research was especially seen as a way of qualifying for other academic posts: “I saw research as an opportunity to get broader opportunities in the future and to be involved in teaching at the university” (informant 18). Some had also considered continuing with private sector research: “I consider doing research in the private sector when I have finished my PhD” (informant 12). Other researchers were more disillusioned: “. . . I felt that I spent huge amounts of time on something that seemed distant to many people” (informant 3).

**Working conditions**

An inspiring research team was important for joining and staying in research for both younger (i.e. who have not yet received a PhD degree) and experienced researchers: “I felt welcome and found that I could be part of something important. I felt that it would be exciting to be a member of the team” (informant 22). Others, in contrast, felt that doing research was a lonely process: “The worst thing for me is the isolation, it discourages me” (informant 15). ‘Open doors’, both literally and in the sense of providing easy access to discussing research problems, were very important as were good office facilities, private computers and competent secretarial assistance.

The possibility of flexible working hours was very important, especially to the younger researchers: “It is a very flexible way of working. You can work where and when it suits you” (informant 12). Older researchers too appreciated the opportunity to influence their working hours because it made their work less stressful although their total number of working hours might be higher than in clinical work: “One of the great things about being a primary care researcher is the very high degree of freedom” (informant 17). But the total workload was excessive: “I still remember the day my wife asked me if we could make an agreement: I should only work four nights a week . . .” (informant 29).

The opportunity to combine research and clinical work was considered very important not only by all specialists in general medicine but also by many of the young researchers, who had not been working as clinicians: “I could not imagine working as a full-time clinician, nor could I imagine myself as a full-time academic. The synergy between clinical work and research is important” (informant 24).

Some of the informants stopped conducting research immediately after completing their PhDs. It was very difficult to combine a full-time clinical career with spare time research. Even half-time research combined with half-time clinical work was much more than a full-time job.

Also, financial considerations influenced recruitment and retention of primary care researchers: “The greatest barrier is the economy. Clinicians earn a lot more than academics. I think, I have been working for many years now and I consider buying a clinic and working off the investment before I get too close to retirement” (informant 18). Many researchers had had to accept a considerable decrease in income to pursue their research interests and this was difficult: “. . . it was in such a situation that I considered giving up research” (informant 7). Another barrier to retaining researchers was short-term funding and job insecurity: “I think this has been the most serious worry—the financial worries before starting on the project” (informant 14). The short-term funding and job insecurity were particularly problematic for young researchers, but almost all
Informants had experienced stressful situations because of uncertain funding.

Discussion

Heavy workload, isolation at work, short-term funding and low salary were important barriers to pursuing a research career in primary care. The desire and opportunity to improve primary care, the flexible working conditions, the career opportunities, including the possibility of combining university-based research with clinical work and a friendly and competent research environment were important facilitators to attracting and retaining primary care researchers. Younger researchers were more concerned about short-term funding and job insecurity, and many of them were interested in a career combining clinical work and research. There were no clear differences between male and female researchers.

During the interviews, we had the impression that the conversation flowed freely and that the informants were not afraid to express criticism either. However, we, the authors are all members of the Danish primary care research network, and we cannot completely exclude the possibility that the informants have withheld information on problematic issues, although we stressed that the interviews were confidential. Further, our own experiences with a research career may have biased our interviews and analyses. Presentation of the results in a subsequent session with participation of the majority of Danish primary care researchers did not generate new themes, incentives, barriers or explanations.

Barriers to doing research were mainly related to funding and working conditions, and our findings were in line with an American questionnaire study showing that heavy workload, lack of support and funding are discouraging factors. Enthusiasm and idealism are not enough in the long run; researchers should receive the same salaries as clinicians, and excessive workloads should be an exception rather than everyday practice! We do not know, however, how many potential primary care researchers these barriers have scared away, but unfortunately we have reason to believe that it is not an inconsiderable number. Similar to reports from the UK we found that short-term contracts are a major disadvantage for recruiting and retaining researchers.

In line with other studies on successful researchers in primary care and other specialties we found that enjoyment of and interest in research are essential factors. It should be stressed that conducting primary care research offers interesting job opportunities. This message should be conveyed to colleagues not committed to research through articles and open-door arrangements and by recruiting potential research talents as early as possible, preferably already at medical school. In other studies GP registrars and junior academics in family medicine have identified departmental support, research fora and mentoring as important encouraging factors for doing research. Hence, these issues should be given high priority by the research departments.

Another very important topic is the recruiting of non-medical researchers, which will make it possible to increase the number of primary care researchers, strengthen research methodology and increase research in psychological, social and cultural aspects of primary care. It is, however, beyond the scope of this article to discuss non-medical researchers, and further research is needed in this area as non-medical researchers in primary care may attach importance to other facilitating factors and barriers or weight them differently than medical researchers.

To increase the number of active researchers we propose to formulate strategies for developing mentoring and research networks, to focus on research training of medical students and GP registrars, to increase salaries and offer longer-term funding than at present, to increase focus on the attractive research environment and to establish more posts combining research and clinical work. Better strategies for recruiting and retaining researchers are a prerequisite for the development of primary care. Future studies must necessarily include both primary care physicians not committed to research and non-medical researchers.

Declaration

Contributors: all authors have contributed equally to the design of the study, the analyses and the writing of the article.

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Ethical approval: this study did not require approval by a scientific ethics committee.

Conflicts of interest: none.

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