

Research methods courses for GPs: ten years' experience in southern Sweden

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SUMMARY

At the Department of Community Medicine at Lund University we have given courses in basic research methodology since 1989. During a ten-year period, 138 (20%) of the 700 general practitioners (GPs) in our region completed the theoretical part of our course, 104 (75%) finished their research projects, and 17 signed up as PhD students at our department. Thus, we have provided a large number of GPs with a fundamental knowledge of research methods and we have recruited new PhD students to the field of general practice.

Introduction

SCIENTIFIC education during basic medical training and internship has been poorly provided for in Sweden, a problem also recognised in other parts of the world.¹⁻⁵ There have been international surveys covering research education for general practitioners (GPs)^{6,7} but only a few have been follow-ups of specific programmes launched to improve the scientific standard of medical graduates.^{3,5,8}

Sweden has about 4800 GPs, representing 18% of all physicians. There are six full professors of general practice and more than one hundred GPs have presented a PhD thesis. The need for both a larger number of GPs who finish PhD studies and a larger number of professors of general practice is of great concern, and the course in basic research methodology we describe in this article can be considered as an attempt to stimulate the engagement of new scientific students in our field. We also want to provide a large number of GPs with basic training in research methods to be used in everyday clinical life in order to enhance practices of a high standard and good quality follow-up.

In the *Journal of the Swedish Medical Association* we have continuously presented the development of our course, which was initially intended for GPs only but later came to involve other medical specialists as well. In this article, we present our ten years' experience for an international group of readers and focus on the results of the participating GPs.

Method

Sweden is divided into six health care regions, each with one or two university hospitals where highly specialised health care is provided and where medical and research training is performed. The Southern Health Care Region, with more than 1.5 million inhabitants, consists of four counties and there are two university

hospitals, in Malmö and Lund, situated 20 kilometres apart in the south-west corner. The other five hospital towns are situated between 50 and 200 kilometres from the university cities. All hospitals, as well as most health centres, are run by the county councils and most doctors are employed by the counties. There are about 700 GPs in our region.

In 1989, a structured collaboration began between the Department of Community Medicine at Lund University and the GPs of the region, which resulted in a formal course in basic research methodology that yielded 20 points of university credit (the equivalent of one full-time semester of studies). The course was run part-time, covering one and a half years, so that the participants could carry on with their clinical work in parallel with their studies.

Half of the time was spent on lectures (Table 1) and half was devoted to a small research project with the assistance of a personal tutor. The teachers were recruited mainly from our department and the lectures were concentrated to approximately one day per month, more often in the first semester but less often in the third. As the lectures and the projects were carried out in parallel, the theoretical knowledge could be implemented directly.

Most GPs were supported financially by their employers and they were allowed to attend lectures during regular working hours; however, most of the project work had to be done during free time.

The final examination was held in the form of a two-day seminar, where each student had to defend his/her own project and challenge a project of a colleague. Our aim was to have the standard of the projects high enough for scientific publication in Swedish or in English. A written examination that covered basic biostatistics and epidemiology as well as qualitative methods was also required.

An increasing interest in the newly established research methods courses was noticed among hospital physicians in our region. In 1992, all types of physicians were invited to new courses in three hospital towns and two more towns were added in 1995. Local colleagues ran the classes in the different towns but the examination and the curriculum were under the supervision of our department.

Results

During a ten-year period, 393 students, 340 of whom were physicians, completed a total of 19 courses. We also provided education to 202 hospital physicians.

Thus far, 138 of the 700 GPs in our region have gone through the theoretical part of the course, which means that 20% of the GPs now have a basic scientific schooling. Of these, 104 completed their project work as well, hence 75% have graduated. Of these, seven have already defended a PhD thesis and another 10 have been registered as PhD students at our department. Thus, 16% of the GPs who graduated have been recruited for further scientific work.

The content of the GPs' projects has been very varied, reflecting the broad field of general practice. To our knowledge, 26 articles (25%) have been written in English, 15 of which have already been published in international peer-reviewed journals. Many project papers have also been published in Swedish language journals.

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Table 1. Theoretical content of the research methods course: number of hours on lectures and number of pages of compulsory reading.

Subject	Hours	Pages
Introduction	4	-
Library search	8	-
Research methods	8	300
Theory of science	4	100
Ethics in science	4	150
Biostatistics	20	850
Epidemiology	8	500
Survey methods	4	150
Qualitative methods	4	450
Scientific writing	8	600
Total	72	3100

Discussion

We have been developing our course in basic research methods during a ten-year period and it is now well established in our health care region. We wanted to create an education aimed at clinically-working colleagues and the 75% rate of graduation seems satisfying. We also wanted to give basic scientific training to numerous ordinary GPs and 20% of the GPs of our region have attended the course. Finally, we wanted to recruit new PhD students to our department and seven PhD theses have been presented and another 10 are in progress.

We feel that we have succeeded in reaching the two goals we had set up: to give a large number of GPs a fundamental knowledge of research methods and to recruit and increase the number of PhD students in the field of general practice. Our model is spreading to other parts of Sweden and we are also presenting a course in Denmark.

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