

International Family Medicine Education

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Feature Editor

The goal of the International Family Medicine Education column is to bring our readers information about developments in family medicine education in countries outside the United States. We will abstract literature from journals published throughout the world that address issues relevant to medical student education and graduate training in family medicine and general practice. The issues may relate to changes in medical education or in medical care organization or delivery. Topics may also address health and illness issues relevant to family physicians throughout the world. If you have seen something published in the non-US literature about the development of family medicine education and research that could be shared with your colleagues, please contact me at 415-597-9370. E-mail: jrodnick@psg.ucsf.edu. University of California, San Francisco, Department of Family and Community Medicine, UCSF Box 0886, San Francisco, CA 94143. Your comments regarding this column are welcome.

Denmark

The Life of a Clinical Researcher

(Thomsen JL, Jarbol D, Sondergaard J. Excessive workload, uncertain career opportunities, and lack of funding are important barriers to recruiting and retaining primary care medical researchers: a qualitative interview study. Fam Pract 2006;23:545-9.)

In the past 2 decades, the amount of family medicine research has continued to grow in both the United States and Europe. However, there are shortages of well-trained researchers who are familiar with the research methods needed in health services, public health, social sciences, and clinical medicine and who can conduct studies in such areas as doctor-patient communication and medical decision making, as well as large clinical trials.

The authors were interested in finding out more about the barriers to and how best to facilitate a research career in primary care in Denmark. They conducted qualitative interviews with 33 medical researchers affiliated with three Danish medical facilities. The inter-

viewees were all medical doctors, and 61% were general practice specialists who had finished training. Sixty percent had a PhD, and 30% were enrolled in a PhD program. (In Europe, medical school graduation is at the bachelor degree level; a graduate degree such as a PhD is usually necessary for a university appointment.) All interviews were transcribed and independently analyzed and coded.

The factors that were associated with planning to be a general practice researcher included early exposure and/or training in research, the desire to improve primary care, enjoying the intellectual challenge, and opportunity to be an expert. Interviewees also mentioned that they saw the job of a researcher or an academic as interesting with a friendly work environment. Some planned to do research as a practitioner and wanted the opportunity to combine research and clinical work. The possibility of flexible working hours was important to young researchers.

Barriers to pursuing a research career included financial considerations, since clinicians earn more than researchers. Job insecurity and uncertain short-term funding were

particularly problematic for young researchers but mentioned by all. A heavy workload and isolation from colleagues were also seen as barriers.

To increase the number of active researchers, the authors propose to offer more research training for medical students and general practice trainees, improve networking, increase salaries, have more long-term funding, make attractive research environments, and establish more positions combining research and clinical work.

Comment: The clinical research enterprise functions similarly in many countries—funding is scarce, the work is long (but interesting), and it's hard to balance research and clinical work. Improving the research environment, mentoring of trainees, and increasing salaries and funding are crucial steps in all countries.

Teaching GPs to Use Motivational Interviewing

(Rubak S, Sandbaek A, Lauritzen T, Borch-Johnsen K, Christensen B. An education and training course in motivational interviewing influence: GPs' professional behavior—ADDITION Denmark. *Br J Gen Pract* 2006;56:429-36.)

Motivational interviewing has gained international use to treat addictions, change lifestyles, and improve adherence. Controlled trials have shown it to be an effective tool to help patients change their diet, get more physical activity, quit smoking, and improve diabetes control.

Motivational interviewing involves patient empowerment, helping patients resolve ambivalence, and eliciting and reinforcing a patient's belief in his/her ability to achieve a goal. The stage of change model and reflective listening techniques are also used.

This study evaluated how a 1.5-day course in motivational interviewing for Danish general practitioners (GPs) influenced their professional behavior in the care of patients with type 2 diabetes. The authors recruited 65 GPs from 48 practices who were interested in participating in the course. They were randomized into two groups, one of which received the course and 2 half-day follow-up sessions during the year. Both groups received a half-day course in the medical treatment of diabetes. Both groups were followed for 1 year, and at the conclusion of the study completed a written questionnaire on what they would do when patients do not follow their advice. Thirty GPs were in the control group and 29 in the intervention group, and there were no significant differences in doctor practice demographics between the two groups.

Based on self-report, GP participants significantly changed their professional behavior with patients and more often used the motivation-

al interviewing techniques. They felt that these techniques were more effective than traditional advice giving and were not more time-consuming. The authors concluded that a formal 1.5-day course can change GPs' use of motivational interviewing techniques.

Comment: Motivational interviewing techniques have been developed and taught by US family medicine educators (such as Will Miller, Bill Doherty, and Rick Bothelo). All developed countries are facing the same epidemic of chronic diseases, which are partially amenable to lifestyle changes. Motivational interviewing and practice may help us help patients change their behaviors. It is good to see these techniques being taught and used in other countries.

Spain

Historical and System Differences in General Practice in Europe

(Gervas J, Fernandez MP. *Western European best practice in primary health care. Eur J Gen Pract* 2006; 12:30-3.)

This discussion paper examines reasons that general practice/family medicine is well developed and politically powerful in some European countries. Health policy making is a dynamic process involving professional organizations, hospital organizations, pharmaceutical and health technology industries, and government. So why is general practice more developed and powerful in some health systems?

They describe the stronger development and status of primary care in countries with national health systems, which the authors label "Beveridge Systems" after Lord Beveridge, the key person behind the formation of the British

National Health Service (NHS). Examples of these countries are the United Kingdom, Denmark, and Spain. Here, health services are primarily funded by taxation, and there are strong general practice professional organizations, university departments, and postgraduate training programs (although this is now mandatory through the European Union). In these countries, the state has the responsibility and authority for the health care of its citizens and contracts with general practitioners (GPs) to provide it. Insurers have a limited role. Further, gatekeeping, patient lists, and capitation payments play important roles in keeping a balance of power between GPs and specialists. In these countries, the GPs have a strong position because of (1) their professional autonomy and status as independent contractors, (2) their monopoly on first-contact care (through gatekeeping), (3) their knowledge production (research) and information control (through electronic medical records), (4) their positive impact on health system cost control, (5) their contribution toward reversing the impact of social and economic inequities, and (6) the high patient satisfaction levels they have achieved.

Some countries (such as Finland, Greece, Portugal, and Sweden) with a national (Beveridge) Health System have weaker general practice professional organizations and have not developed the robust strength of primary care. The authors note the special care of Spain with a Beveridge-type system introduced in the 1980s. Spain has made a successful transition to strong primary care compared to other Mediterranean countries such as Italy, Greece, and Portugal.

In contrast, other wealthy northern European countries such as Belgium, France, and Germany have a "Bismarck" model of health care. These countries use an employer/social security/insurance funding system. Governments have taken

a more hands-off, reactive role and insurance funds (which can be public) a larger role. Most GPs are in private practice and in competition with specialists. There is no gatekeeping, and patients can go directly to private specialists. GP associations, with the exception of The Netherlands, are weak politically.

However, some countries with the Bismarck model have gatekeeping requirements—for example, The Netherlands, where 60% of the population who have public insurance need to see their GP before referral. Also, in France and Belgium, patients will have less cost sharing if they get referred by their GP rather than go directly to a specialist.

The authors conclude by noting the diversity of primary care in Europe, but the most successful systems have strong general practice associations and widespread use of patient lists and gatekeeping.

Comment: The authors' opinions correlate well the primary care ratings of Barbara Starfield. Her highest-rated countries include the United Kingdom, Denmark, Spain, and The Netherlands. Her lowest-rated countries include France, Germany, Switzerland, and Greece (and the United States).

United Kingdom

Family Doctors Versus Nurse Practitioners—What Are the Trade-offs?

(Hollinghurst S, Horrocks S, Anderson E, Salisbury C. *Comparing the cost of nurse practitioners and GPs in primary care: modeling economic data from randomized trials. Br J Gen Pract* 2006;56:530-5.)

Nurse practitioners work in a variety of primary care settings in the United Kingdom, including general practice offices and walk-in acute care centers. Understandably, there has been interest by the National Health Service (NHS) in substituting nurse practitioners (NPs) for general practitioners (GPs) to reduce costs while achieving similar outcomes. Recent systematic reviews showed that NPs had longer patient visits, ordered more tests, had equivalent quality of care, improved patient satisfaction, and had more return visits compared to GPs.

The authors estimated the cost difference in employing a salaried GP or NP to deal with excess patient demand from the perspective of a general practice office as well as the NHS as a whole. They developed a model that focused on the cost of the extra employee and resources used but assumed other infrastructure costs would be the same.

From the practice perspective, clinical staff time and supplies were the only relevant items. From the NHS perspective, additional items include amortized costs to train the provider and the costs of lab, X rays and other investigations, and prescriptions and referrals.

They found that total time with the clinician (including return visits within 2 weeks) averaged 9.36 minutes per patient for a GP and 15.97 minutes for a NP. The later included an average of 2.76 min-

utes per patient for the NP to ask for GP advice or get the prescription co-signed (required in the UK). The cost per minute of patient care time for salaries (and training) for a GP is 2.3 times that of a nurse practitioner (1.4 versus 0.6 pounds per minute). However, factoring in the cost of GP time to provide backup and consultations for the NP, the increased number of ordered tests and prescriptions ordered by the NP, and the shorter duration of the visit by the GP, the mean cost per visit was 28.14 pounds for the GP and 30.35 pounds for the NP.

A sensitivity analysis showed the difference in costs were most heavily influenced by the time the GP spent supervising an NP and by the NP salary.

The authors concluded that employing NPs to provide first-line acute care is likely to cost the same or slightly more than employing doctors. From the perspective of the NHS, this finding is robust under most assumptions. From the perspective of the practice, as NPs gain experience and require less supervision, the cost of an NP may become less than a GP. The authors note decisions to employ NPs or doctors should depend on the full range of their roles and responsibilities rather than costs.

Comment: My hallway conversations confirm that this paper is relevant to the United States, where there are similar trade-offs between NPs and family physicians. Indeed, in the United States, there is less of a difference in salaries between the two professions than in the UK, and family physicians are expected to do after-hours call. In the United States, the bottom line may be even more favorable to the family physician. However, NPs often provide expanded patient education and disease management skills.