Recruiting issues in community-based studies

Some advice from lessons learned

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A very small percentage of the population receives its health care in teaching hospitals, yet this is where most of the patient-focused health research takes place.[1] As such, the results are often not generalizable to the patients we see in family practice.[2] Recently, enlightened hospital-based researchers are beginning to address this issue and are turning their attention to family practices to recruit patients for their studies.[2] At the same time, family medicine physicians are also beginning to ask their own questions and participate in both clinical research and health services research.[3]

Family physicians' participation in primary care research is one of the challenges with which family medicine researchers are struggling.[4] Residency training in family medicine is so short that research training gets little, if any, time in the curriculum.[5] Unlike our colleagues in other specialties, most FPs do not see research as part of their mandate as physicians.[6] Further, they are under constant workload pressures and do not have the support systems in place for office-based practice research.[7] For those FPs who are engaged in research, enlisting community-based FPs to be involved in any type of research can be a problem.

Case study

The Respiratory Educators in Primary Care study, based in Alberta, is a provincewide, site randomized, unblinded, controlled study of education for respiratory disease. Using this study, our goal was to discern and describe both the barriers to recruiting family physicians and their patients in community-based research and possible solutions to these problems.

Using addresses from the Alberta College of Physicians and Surgeons physician directory,[8] invitations to participate were mailed to all 2700 FPs practising in the province's major urban cities (Edmonton and Calgary). The invitation letter described the relevance of the study to physicians, the process of the study, and the benefits of the study to physicians and patients. The responding physicians, of which there were 81 (3%), were recruited to information sessions that convened in a variety of locales after office hours. Of those respondents, 68 (84%) attended the information sessions.

Physicians were asked to identify asthma and chronic obstructive pulmonary disease patients from their billing data and send them prewritten invitations (but printed on the FPs' own respective letterheads) inviting interested patients to take part. Sixty-five of the recruited physicians signed consents to do so, but only 26 of them (40%) actually recruited patients (a total of 177 patients). Therefore, of the 2700 FPs originally contacted, only 1% participated in the study in a meaningful way.

As a result of this low recruitment rate, we instituted a program of direct physician contact with physicians within the targeted areas. We arranged personal visits to FPs' clinics to explain the study. After 4 months, a total of 104 consenting physicians were recruited. This time 78 (75%) active FPs contributed 350 patients between them. The direct personal approach was much more rewarding in proportion to time and resources expended.

To expound these results, we searched the literature to identify barriers and solutions to enlisting FP involvement.

Barriers identified

The obstacles that appear to stand in the way of FP involvement in community-based studies are as follows:

Time constraints. The most frequently cited reason for declining to participate was physicians' busy office schedules.[4,9] In general, 24% of consenting physicians do not actually recruit any participants.[10]

Resources. Lack of staff, training, space, and equipment further prevents FPs from taking part in studies.

Competing research. In cities with academic centres, FPs might receive multiple requests to take part in research.

Previous research. Family physicians might have been "burned" in the past by irrelevant specialist research.[7]

Lack of rewards and recognition. Community FPs are rarely included in authorship even when their contribution is acknowledged and substantial.

Doctor-patient relationships. Family physicians might have concerns that the doctor-patient relationship is going to be adversely affected by asking patients to take part in a study.[11]

Loss of professional autonomy. Family physicians fear loss of autonomy because of research protocols they are not involved in developing.

Difficulty with consent procedures. Consent procedures can be time-consuming. Some research ethics boards believe that the physician-patient relationship is all about power, control, and coercion and might have extensive consent requirements.[10]

Fear of evaluation. Some FPs fear that evaluation might reveal practices that are less than ideal.[12]

Study design and recruitment efforts should recognize these concerns and minimize demands made on physicians and their staff.[4]

Solutions for successful recruitment

Based on our research, we discovered that various recruitment problems could be resolved with the following measures:

Direct recruitment of clinicians by clinicians. Collegial relationships and in-person presentations are far more persuasive and appear more legitimate than anonymous mailings.[13-16]

Maintaining personal contact. Researchers should maintain relationships with recruited colleagues.[14,16,17]

Relevant research. The research should be of direct use to physicians and their practices,[4,10] and should ensure the potential for improved or high-quality care.[7]

Use of endorsements. Physician organizations, local medical staff groups, and local FP opinion leaders can help endorse research.[4,13]

Provision of assistants. Study nurses or aids to do in-office work will alleviate the burden of the research.[9-10]

Mentorship. Physicians who are actively engaged in research should offer to become mentors for community FPs who are interested in engaging in their own studies.[7]

Recognition of value of FPs' time. Modest incentives should be offered to participating FPs, such as an hourly honorarium for time spent meeting with researchers.[9] Participation in research should effectively be cost neutral.[7]

Recognition of value of staff members' time. Small gifts or nominal payments to FPs' staff for their work would be appreciated and would help ensure that researchers are welcome back. More than brief staff involvement should be paid for at a commercial rate.[7,12,16]

Continuing medical education credits. Physicians should have the opportunity to earn continuing medical education credits with research participation.

The above suggestions for improving recruitment in family practice research can be summarized as the 7 *R*'s: Relationships, Reputation, Requirements, Rewards, Reciprocity, Resolution, and Respect.[17]

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Competing interests
None declared

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References

1. Green LA, Fryer GE, Yawn BP, Lanier D, Dovey SM. The ecology of medical care revisited. *N Eng J Med* 2001;344;(26):2021-5.
2. Manca DP, Maher P, Gallant R. Ethical concerns in community practice research. Common concerns encountered by the Alberta family practice research network. *Can Fam Physician* 2006;52:288-9 (Eng), 296-8 (Fr).
3. Stange KC , Miller WL, McWhinney I. Developing the knowledge base of family practice. *Fam Med* 2001;33(4):286-97.
4. Levinson W, Dull VT, Roter DL, Chaumeton N, Frankel RM. Recruiting physicians for office-based research. *Med Care* 1998;36(6):934-7.
5. College of Family Physicians of Canada. Standards for accreditation of residency training programs. Mississauga, ON: College of Family Physicians of Canada; 2006. p. 13. Available from: **www.cfpc.ca/local/files/Education/Red%20Book%20Sept.%202006%20English.pdf.** Accessed 2009 Mar 19.
6. Cave AJ, Parameswaran L, Moores D. *Comprehensiveness of care by family physicians in Edmonton.* Proceedings of the College of Family Physicians of Canada Section of Researchers Annual Research Day; 2006 Nov 5; Quebec City, QC.
7. Rosemann T, Szecsenyi J. General practitioners' attitudes towards research in primary care: qualitative results of a cross sectional study. *BMC Fam Pract* 2004;5(1):31.
8. Find a Physician Advanced Search [database on the Internet]. Edmonton, AB: College of Physicians and Surgeons of Alberta; 2004. Available from: **www.cpsa.ab.ca/PhysicianSearch/AdvancedSearch.aspx.** Accessed 2009 Mar 19.
9. Asch S, Connor SE, Hamilton EG, Fox SA. Problems in recruiting community-based physicians for health services research. *J Gen Intern Med* 2000;15(9):591-9.
10. Kuyvenhoven MM, Dagnelie CF, de Melker RA. Recruitment of general practitioners and patients in a sore throat study. *Br J Gen Pract* 1997;47(415):126-7.
11. Rendell JM, Merritt RD, Geddes JR. Incentives and disincentives to participation by clinicians in randomised controlled trials. *Cochrane Database Syst Rev* 2007;18(2):MR000021.
12. Mapstone J, Elbourne D, Roberts I. Strategies to improve recruitment to research studies. *Cochrane Database Syst Rev* 2007;18(2):MR000013.
13. Ellis SD, Bertoni AG, Bonds DE, Clinch CR, Balasubramanyam A, Blackwell C, et al. Value of recruitment strategies used in a primary care practice-based trial. *Contemp Clin Trials* 2007;28(3):258-67. Epub 2006 Sep 1.
14. Carey TS, Kinsinger L, Keyserling T, Harris R. Research in the community: recruiting and retaining practices. *J Community Health* 1996;21(5):315-27.
15. Kottke TE, Solberg LI, Conn S, Maxwell P, Thomasberg M, Brekke ML, et al. A comparison of two methods to recruit physicians to deliver smoking cessation interventions. *Arch Intern Med* 1990;150(7):1477-81.
16. Solberg LI. Recruiting medical groups for research: relationships, reputation, requirements, rewards, reciprocity, resolution and respect. *Implement Sci* 2006;1:25.
17. McBride PE, Massoth KM, Underbakke G, Solberg LI, Beasley JW, Plane MB. Recruitment of private practices for primary care research: experience in a preventive services clinical trial. *J Fam Pract* 1996;43(4):389-95.

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