Physician Interest In Collaborative Research

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Abstract: A pilot study of more than 400 clinical faculty was conducted in spring 1985 by the Division of Family and Community Medicine, University of California, San Francisco, to identify physicians interested in participating in collaborative research. Six different approaches to collaborative research were defined, and the respondents indicated their "enthusiasm" to each of the approaches and the methodologies that each would involve. Based on response to mail and phone surveys, it is estimated that 40 percent of the clinical faculty have some interest in collaborative research. Their preferences for the approaches were: (1) randomized trials, 63 percent; (2) surveys of patients, 60 percent; (3) evaluation of physician practices, 59 percent; (4) referral of patients for research conducted elsewhere, 54 percent; (5) research involving chart review, 53 percent; and (6) research involving a change in clinical practice, 38 percent. Thus, there is preference for more complex types of studies, but this can create a dilemma for those who wish to stimulate research among unproven investigators. (JABFP 1988; 1:29-32.)

Research in family medicine is hampered by the demands of clinical practice, and yet it is this clinical base that gives family physicians a first-hand view of patients and their environment. All too often, practitioners sense the importance of what they are seeing clinically but do not have enough patients to document a treatment's success or failure or to describe generalizable experiences. Primary care physicians need to collaborate with their colleagues to overcome the selection bias of patients seen at tertiary care centers and to bring together sufficient numbers of patients to address issues of greatest concern to primary care providers.

The Royal College of General Practitioners in Great Britain recognized this opportunity almost 40 years ago when it was given organizational status by the National Health Service. Six independent research units were set up by the College, and they obtain financial support from the National Health Service. Following the example of such country doctors as Pickles[1] and Fry,[2] the College defined a role for the general practitioner interested in research. One example of their collaboration is the College's well-known prospective study on oral contraceptives.[3] Academic departments of family practice in Great Britain have also been involved in the collaborative research role, particularly in studies of continuing medical education.[4]

Researchers in Canada,[5] Australia,[6] Switzerland,[7] and Belgium[8] have also successfully utilized the collaborative approach in studies of common problems in office practice. Damsbo and Olsen[9] in Denmark, however, reported the failure of a multipractice study because of a variety of factors such as length of time, physician forgetfulness, workload, and lack of knowledge about research methods. Thus, much has been learned from both the successes and the failures in this approach.

Recently, a number of family practice departments in this country have organized networks of practitioners to collaborate on research. These are the Primary Care Cooperative Information Project,[10] the Ambulatory Sentinel Practice Project of North America,[11] and the Minnesota Academy of Family Physicians Research Panel.[12] These networks facilitate large-scale research, particularly when conducted in practices where there are microcomputers that allow on-line entry of data.

Recognizing that collaborative research networks were needed in California, the Division of Family and Community Medicine at the University of California, San Francisco (UCSF), discussed a proposal for collaborative research at its annual meeting. The result was a pilot survey of more than 400 clinical faculty conducted in spring 1985. The pilot study sought to determine those family physicians who would be interested in collaborative research, the capabilities of their exist-

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ing computer systems for collecting research data, and the kinds of clinical research projects in which the physicians would agree to participate. A fourth purpose was to identify potential faculty interested in a leadership role in the collaborative effort.

Methods

The sample was composed of 486 clinical faculty and included all members of the clinical faculty affiliated with the Division at the time of the study. These physicians were primarily involved as clinical preceptors for medical students, but some were also connected with the five residency training programs affiliated with the Division (Santa Rosa, Salinas, Fresno, Fort Ord, and San Francisco). None were full-time faculty, and they saw a minimum of 50 to a maximum of 200 patients per week. More than two-thirds of the sample were in private practice, fewer than 10 percent were employees of health maintenance organizations, and the remainder were in public health clinics.

A questionnaire, which was mailed to the clinical faculty, sought to determine interest in research by posing six different scenarios of possible research projects. Each study involved a different approach to research. The first study described an evaluation of drug information sheets that required a change in usual office practice.

The second study was interested in establishing causes of infant colic by following a cohort of pregnant women through pregnancy and two months after birth. Patients would be recruited from participating practices where initial information would be collected and then referred to the investigators for follow-up interviews.

Study three required random allocation of patients for treatment of simple ankle sprains by comparing the effectiveness of acetaminophen with codeine (pain relief only) with anti-inflammatory therapy with ibuprofen. Study three would be carried out in the physician's office with collection of data on treatment and time to recovery.

The fourth study examined physicians' attitudes and beliefs about preventive health care. Those who agreed to participate would fill out a questionnaire and submit their records for chart review of preventive practices.

The fifth plan also involved chart review, but in this instance the patient, not the physician, was to be the subject of the study to test the hypothesis that mothers who make frequent visits to the doctor's office also bring their children to the doctor more frequently. Families' charts would be reviewed for number of visits, diagnoses required, and possible determinants of health.

The sixth and final study required referral of families for longitudinal study of cardiovascular risk factors. Families would be referred to a central diagnostic site for laboratory tests, physical exams, and interviews and the results made available to their primary care physicians for counseling about how to reduce risks.

The respondents were asked to rate their interest in participating in a particular study as well as their interest in a particular study design. They assessed potential benefits from engaging in collaborative research and provided information on the type of practice in which they were engaged and on their computer facilities.

A second mailing was sent two weeks after the first, and a telephone survey of a random sample of 10 percent of nonrespondents was done after one month.

Table 1. *Factors Considered Very Important in Respondent's Decision to Participate in Collaborative Research.*

Factor	Number* (n = 142)	Percent
Opportunity to contribute to developing new knowledge	95	67.4
Possibility of seeing research ideas implemented	48	34.3
Opportunity to organize projects and discuss research ideas	46	32.6
Feedback about how other M.D.s practice	45	32.1
Opportunity to publish in scientific journals	38	27.0
Opportunity to present findings at research meetings	24	17.0
Instruction in computers	22	15.6
Training of office staff in data collection/computer	19	13.5
Monetary reimbursement	4	2.9

*Respondents who did not answer are excluded from the denominator.

Results

Interest

Replies were received from 230 clinical faculty, 47 percent of the sample. Of these respondents,

Table 2. *Enthusiasm of Respondents to Projects and Methodologies.*

	Number* (n = 142)	Percent
Methodology		
Random allocation of patients to treatments	87	62.6
Studies involving recruitment of patients	83	60.1
Studies of physician practices	82	59.0
Referral of patients for longitudinal studies	74	54.0
Studies involving chart review	74	53.2
Studies involving change in practice	53	38.1
Project Described		
Randomized treatment of ankle sprain	53	37.6
Etiology of infant colic	50	35.7
Study of preventive health practices	64	45.4
Factors in early childhood affecting cardiovascular disease	62	44.3
Association between numbers of visits of mothers and children	41	29.1
Patient information sheets	22	15.7

*Respondents who did not answer are excluded from the denominator.

142 (62 percent) were interested in participating in collaborative research. In addition, 22 percent (n = 6) of the telephone sample also said they were interested. Based on both types of response, we estimated that about 40 percent of the clinical faculty in this pilot study have some interest in collaborative research.

Benefits

The opportunity to contribute to developing new knowledge was the factor two-thirds of the respondents felt to be most important in their decision to participate in collaborative research. Other benefits that were agreed on by approximately one-third of the respondents were feedback about their practice of medicine, discussion of research with others, and implementation of their own research ideas. Very few respondents were interested in publications, presentations at meetings, instruction in use of their computer systems, or training of their office staff to collect data. Only four respondents said they were interested in the possibility of monetary reinbursement for participating (Table 1).

Kinds of Clinical Research

Numbers and percentages who were "enthusiastic" about the approaches and the particular projects are presented in Table 2. The respondents were more interested in common clinical questions about therapy or practice than they were in the kinds of patients seen or the effect of change in practice on patient behavior. Interestingly, their preferences often involve more difficult research methodologies such as clinical trial and treatment protocols.

Characteristics of Respondents

Fifty-one percent of the interested physicians were board certified in fields other than family practice, 56 percent were under 40 years of age, and more than 85 percent were engaged in solo or small group private practices. These and other characteristics are described in Table 3.

Table 3. *Characteristics of Respondents with Some Interest in Collaborative Research.*

	Number* (n = 142)	Percent
Board certified in family practice		
Yes	67	48.9
No	71	51.1
Age		
Over 40	61	44.2
Under 40	77	55.8
Practice size		
Solo	46	32.6
Small group (2–7)	76	53.6
Medium group (8–20)	10	7.2
Large group (20)	7	5.1
Other	2	1.4
Practice setting		
Urban	61	44.2
Suburban	48	34.8
Rural	29	21.0
Computer in office		
Yes	60	42.4
No	82	57.6

*Respondents who did not answer a given question are excluded from the denominator.

Discussion

From the results of this pilot study, we conclude that there is indeed an interest in clinical primary care collaborative research among practicing physicians who are affiliated with the academic Division of Family Medicine at UCSF. The physicians are already busy with teaching, and yet they are willing to extend themselves further for the benefit of advancing knowledge about primary care. There may be other benefits that are more difficult to assess by a survey. For example, establishing collegial relationships may appeal to a physician engaged in solo practice (33 percent of our respondents).

The kinds of projects and types of research that interested the respondents are broad and cover the range of family practice. We were surprised to find a preference for participation in randomized clinical trials, treatment protocols, and more complex types of studies that would be very demanding for new researchers. There is a dilemma of aspiring for the most difficult research design when the ability to execute simpler studies is not yet proven. Furthermore, the gap between responding to a survey and participating in large-scale research is sizable. We have yet to test the abilities of such a group of physicians in the reality of a collaborative research project.

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