Community-Oriented Primary Care: Critical Assessment and Implications for Resident Education

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Background: **Community-oriented primary care (COPC) is a systematic approach to health care based on principles derived from epidemiology, primary care, preventive medicine, and health promotion that has been shown to have positive health benefits for communities in the United States and worldwide.**

Methods: **MEDLINE was searched using the key phrase "community-oriented primary care." Other sources of information were books and other documents.**

Results and Conclusions: **Because of lack of predictable reimbursement for COPC services and difficulties encountered incorporating COPC in medical and residency curricula, widespread application of COPC has not occurred. Recent trends in public health initiatives, managed health care, and information technology provide an environment ripe for application of COPC in medical practice. Also, recent recommendations made by the Strategic Planning Working Group of the Academic Family Medicine Organizations and the Association of Family Practice Residency Directors regarding specific community competencies for residency training have direct bearing on COPC and family medicine educators. These trends and recommendations, properly configured, will produce a medical training and practice environment conducive to COPC. (J Am Board Fam Pract 2001;14:141–7.)**

Community-oriented primary care (COPC) is a process of improving a community's health by using principles of public health, epidemiology, and primary care. Definitions of COPC have traditionally used these principles to describe a system of health care in which a targeted population or community is the focus.

Methods

An Internet MEDLINE search was conducted via PubMed using the key phrase "community-oriented primary care." More than 200 articles were generated. Abstracts of these articles were reviewed for relevance, and full texts were obtained for relevant articles. References cited in these articles were selected and reviewed for their relevance and historical information. In total, more than 100 articles and 8 books or other documents were reviewed.

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Status of Community-Oriented Primary Care in Primary Care

COPC has remained a difficult and elusive concept for both educators and practitioners, yet COPC is being promoted in family medicine academic circles as an ideal method for providing high-quality health care, especially in underserved and rural areas.[1] In a 1999 publication, the American Public Health Association gave the following description of COPC:

> Community-Oriented Primary Care (COPC) is a systematic process for identifying and addressing the health problems of a defined population. It can be implemented with the resources available in most communities. In COPC, a team of health professionals and community members work in partnership over a long period, diagnosing and treating a community in much the same way as does a primary care physician with an individual patient. Primary care practitioners are not required in every project, and they are usually too busy to lead such an effort, but they must be involved.[2]

COPC offers the possibility of addressing the environmental and social causes of ill health with

the assistance of a primary care physician. Controversy concerning the practicality of COPC for the individual or small-group practice is well documented in primary care literature.[3–8]

This controversy involves the lack of predictable reimbursement for COPC, and thus a reliance on external funding sources, and the difficulties encountered in the incorporation of COPC training in the traditional medical school and residency structure. Lack of understanding of the basic concepts of COPC and misconceptions of the meaning of COPC have frustrated practitioners and educators in primary care for many years.[9,10]

Family medicine, with its emphasis on comprehensive care of patients, embraces the concept of care of the community; however, many family physicians and family medicine educators are not well-informed about COPC.[11] Many physicians familiar with the term view it as impractical to use in the average practice or feel inadequately trained to implement or teach it. Questions about the value of and best methods for teaching COPC plague many family medicine educators who are reluctant to add to the already overcrowded family medicine curriculum.[12–20]

The Strategic Planning Working Group of the Academic Family Medicine Organizations and the Association of Family Practice Residency Directors has recently recommended the following community competencies for residency training: (1) COPC or population-based medicine should be included in residency training and modeled by residency programs; and (2) during training, resident family physicians should acquire the ability to recognize community health needs, intervene appropriately, and assess the outcomes.[1] In a recently published companion article,[21] we presented an historical review of COPC that describes factors that have prevented COPC from becoming a widely used and accepted system of care in the United States in general and in family medicine in particular. The current article makes suggestions for curricular development based on a review of the COPC literature and provides a starting point for discussion among family medicine educators responsible for implementing the recommendations of the Academic Family Medicine Organizations and Association of Family Practice Residency Directors.

This article has two objectives: (1) to describe new circumstances that might make COPC a feasible mode of practice, and (2) to suggest a curriculum for teaching COPC to family physicians.

Reimbursement And Public Health: Data Sources and the External Funding Factor

The modern world of biotechnological medicine requires a delivery system that will create an ". . . equilibrium between medical care and health care, between public health and personal health services, and between curative and preventive care. . . . "[6] To provide the best care for individuals, family physicians require data describing the specific population from which individual patients derive.[22] Despite persistent support for its basic tenets, the lack of reliable funding sources has made for slow implementation of COPC among family physicians and educators alike. Inevitably one must ask, Why will it work now?

Recent changes in focus within the public health community and emerging changes in physician reimbursement methods, taken together, provide family physician educators with a renewed opportunity to promote COPC among physicians in training with confidence that its routine inclusion in private practice is now a realistic expectation.[5] Funding and expertise are now in place for aspects of the COPC process not typically covered by medical insurance and for which physicians are not well trained.

Public health initiatives have recently shifted from a top-down focus, accountable to legislators, funding agencies, and regulatory bodies, to one in which local agencies are accountable to the communities they serve. In this context, performance monitoring is centered on both delivery of individual medical and health care services and on population-based activities addressing public health.[23] Public health has made great strides in describing indicators of health in both individuals and in communities through the Healthy People and Healthy Communities projects. This effort has specified objectives for every aspect of individual and community health.[24–26]

Similarly, the Centers for Disease Control have implemented the Planned Approach to Community Health (PATCH) program.[27] PATCH encourages collaboration among local health departments, community leaders, and health professionals to conduct community health assessments and behavioral risk surveys. Databases are developed and

maintained, interventions are designed and implemented, and outcomes are monitored and compared with health indicators and objectives stipulated by the Healthy People and Healthy Communities project. Community-based interventions are coordinated by public health professionals and implemented by multidisciplinary teams composed of community and health professionals from a variety of local organizations.

This general approach embraces many components of COPC but often lacks participation by primary care physicians. Routine participation in local PATCH initiatives will provide primary care physicians with community-specific health and medical information and will provide the initiatives with specific medical advice as interventions are designed and outcomes are assessed.[27] The Healthy People and Healthy Communities and PATCH initiatives provide physicians the data collection, multidisciplinary team context, and community intervention mechanisms required by mature COPC programs without requiring practices to plan, conduct, and fund the necessary infrastructure.[28]

Such collaboration and coordination are greatly enhanced as a result of massive improvements in information technology and the ready availability of information via the Internet and other forms of electronic information storage and retrieval technology, including electronic medical records. Eventually, this technology will provide the capability for integrating community-based information accessible by primary care physicians and other members of the community's multidisciplinary health care team.

The lack of reliable funding sources for COPC activities has been a persistent obstacle to its widespread use. Practicing physicians are reluctant to invest time and money to learn a process possessing little likelihood of practical application. With the rise of managed care, specifically health maintenance organizations (HMOs), COPC advocates were initially optimistic that practitioners whose patient panels required less acute care would be rewarded. Practitioners would be encouraged to engage in disease prevention and health promotion activities (basic COPC methods), producing healthier patient panels and long-term cost savings to the HMOs.[6]

Unfortunately, the vision was not accurate. The increasing numbers of HMOs have inadvertently led to less emphasis on community-oriented interventions. Indeed, the annual competition among HMOs for contract patient panels has resulted in ever-changing patient populations rather than stable ones, thus mitigating against COPC activities. The annual movement of patients among HMOs prevents long-term observation by physicians of their patient panels and makes such activities as health promotion and disease prevention impossible to implement.[3]

The dissatisfaction with HMOs and apparent migration toward preferred provider organizations and other methods of health care financing among patients and employers, however, might yet prove to enhance the value of COPC.[29–31] Preferred provider organizations and fee-for-service modes of health care financing permit greater patient choice of provider and will probably, with time, stabilize patient panels while continuing to incorporate the financial stability inherent in the managed care industry. This advantage in itself might prove to be unrecognized for the implementation of COPC. Patients who have the ability to choose providers are more likely to remain with those providers, thereby resulting in a stable patient population.

COPC Curricular Considerations for the Discipline of Family Medicine

Although implementation of COPC has been slow, understanding the development of the concepts and principles of COPC would allow educators to develop curricula that can promote and sustain COPC as a system of care distinct from other forms of physician community involvement. Key historical factors to consider when designing a curriculum grounded in COPC were presented in a previous, companion article.[21]

Developing COPC as a family medicine training structure is rife with challenge. COPC curricular components are basic and pervasive, requiring resources and commitment from faculty, learners, and programs. The Accreditation Council of Graduate Medical Education and the Family Practice Residency Review Committee accreditation requirements are stringent, leave little room for extensive curricular additions, and do not currently require training in COPC. Innovative curricula are difficult to implement while ensuring that requirements for continuity of care experiences are met.

The same would be especially true if COPC processes were unique. The systematic approach to

addressing community health problems inherent in COPC, however, differs little from that of many other aspects of family medicine. The basic processes of COPC provide an excellent framework for population-based medicine, practice management, and continuous quality improvement strategies. COPC processes require the skills necessary for routinely assessing and defining a problem, designing an intervention for addressing the problem, and evaluating and monitoring outcomes of the intervention. While each of these practice strategies addresses unique types of problems and involves different types of interventions, COPC, population-based medicine, practice management, and continuous quality improvement are all concepts that, when properly integrated throughout residency training, will benefit family physicians and their patients. It is educationally sound and efficient to define common technical skills and systematic cognitive processes to be reinforced throughout resident training.

Family medicine must determine the unique concepts and skills necessary and desirable for its graduates in COPC and other types of community health care. What is the appropriate role for family physicians in improving the health of a community? Can COPC be taught adequately within the current structure of residency programs? Pathman and colleagues[12,13] described four types of community involvement, including COPC, that physicians maintain in their practices and further determined that medical training had direct implications for the type of community role physicians later practiced.

A major barrier to preparing residents to practice COPC is that those responsible for teaching and modeling COPC have not done so either from a common theoretical base or from informed experience in the practice of COPC. Attempts to teach concepts and provide COPC experiences in medical school and residency have been conceptually fragmented and inconsistent. Consequently, it appears that current graduates of most family practice residencies are not adequately prepared to implement fully functioning COPC practices. What then is needed in family medicine to promote interest and motivate physicians to undertake COPC practices or activities?

First, promoting COPC as a beneficial and appropriate approach to health care must begin with the teachers. Family practice faculty must develop expertise in COPC concepts and practice. Faculty should understand the classic definitions of COPC and the utility of the less precise definitions that followed. Faculty must understand community epidemiology,[32,33] that is, epidemiology related to community health needs. Perhaps most importantly, faculty are needed who are champions of the COPC process and who are role models both within the residency and within the community. Faculty and learner involvement in community health action groups, coordinated by public health agencies or other health-related social agencies, can provide a vehicle for learning new interactive, multidisciplinary team skills that are unavailable in traditional medical educational settings. Family medicine educators can promote COPC as an attainable, effective type of practice and can provide graduates with prerequisite skills and attitudes for implementing such a practice. Processes such as these will promote the development of COPC curricula for medical education in both traditional and nontraditional settings, thus enabling attainment of the goals of the Academic Family Medicine Organizations and Association of Family Practice Residency Directors within the structure of family practice residency training as it now exists.

Additionally, much as the Robert Wood Johnson Foundation-sponsored family practice fellowship program succeeded in producing a cadre of young, academically oriented family physicians who are now assuming leadership positions in the discipline, a COPC faculty fellowship would provide an efficient mechanism for developing COPC faculty. Participation in a COPC fellowship featuring interdisciplinary health care teams training together would provide family medicine educators with the experience necessary for teaching COPC as an excellent, pragmatic, and beneficial practice modality.

Second, program or institutional support structures must assist in this effort. Programs can recruit faculty and trainees who exhibit a demonstrated interest in community involvement and who exhibit existing leadership and organizational skills. Training sites can model population-based care with emphasis on addressing specific health care problems in the community. Programs can model prevention and health promotion activities and provide dedicated faculty time for community health activities. Patient databases can be structured to describe trainees' patient panels, complete with demographics and problem lists. Document-

Table 1. Community-Oriented Primary Care (COPC) Competencies for Medical Students.

1. Understand that patients' physical and social environment and their health and well-being are related
2. Understand the impact of the community upon the health of the population
3. Understand the impact of the community upon a physician's practice
4. Understand the epidemiologic techniques to determine health problems in a community
5. Determine the health promotion techniques and interventions to address community health problems
6. Evaluate outcomes research for validity
7. Define COPC and its core content and process
8. Define COPC elements in a family practice community clerkship

ing referrals to community agencies for training purposes emphasizes the importance of knowing the availability of community resources.

Third, knowledgeable family medicine educators must determine the basic competencies necessary for developing a COPC program and model the use of those competencies in all aspects of the learners' training. Research by Pathman and associates[12,13] supports the notion that the kind of community training medical students and residents receive positively correlates with the extent of their community involvement. With the increasing use of personal computers and the easy accessibility of local, state, and national mortality and morbidity databases through the Internet, gathering and maintaining long-term outcome information is easier than ever before.

Basic competencies to be achieved by students and by residents are summarized in Tables 1 and 2, respectively. Other curricular topics, already commonly included in family medicine curricula, that support preparation for COPC are included in Table 3. Educators in medical schools and residencies must seek innovative strategies that integrate existing curricula and COPC processes. Understanding the requisite COPC concepts and skills will allow educators to influence strongly more positive attitudes toward COPC among learners.

Table 2. Community-Oriented Primary Care (COPC) Competencies for Family Practice Resident Physicians.

1. Define and characterize a given population using secondary data
2. Recognize a community health problem using either subjective or objective data
3. Design an intervention to address a recognized community health problem
4. Know which community resources address a recognized problem
5. Contribute to an organized community action group and monitor the group's progress
6. Determine roles of attending and faculty physicians in community action groups
7. Locate local, state, and national databases for common or chronic disease states
8. Exhibit group leadership skills in a multidisciplinary setting
9. Understand the utility of personal computers and electronic medical records in COPC
10. Analyze activities of a community action group in COPC terms
11. Understand the difference between health promotion and disease prevention projects and a COPC practice

Table 3. Curricular Topics That Support Community-Oriented Primary Care (COPC).

1. Clinical epidemiology
2. Design and evaluation of outcome studies
3. Leadership and group facilitation skill training
4. Team skills, especially with professionals in other disciplines and community members
5. Medical information storage and retrieval systems
6. Medical cost analysis
7. Health promotion and disease prevention techniques
8. Family physician's role in the community's health
9. Population-based medicine

Discussion

Recent trends in public health initiatives, physician reimbursement, and information technology, combined with the recent recommendations made by the Strategic Working Group of Academic Family Medicine Organizations and the Association of Family Practice Residency Directors, properly configured, will produce a medical training and practice environment conducive to COPC. There remain, however, curricular considerations for schools of medicine and family medicine that must be addressed. Educators must have a common theoretical and practical understanding and experience in COPC. An interdisciplinary fellowship in COPC can be a valuable mechanism for developing excellent family medicine faculty and practitioners experienced and highly trained in COPC. These faculty and practitioners could provide the leadership and role models needed to integrate COPC concepts and processes into both the training and practice of family medicine.

Innovative and integrated curricula in COPC must be developed for both medical schools and family practice residencies. Medical students must be exposed to such COPC concepts and skills as epidemiology, health promotion strategies, and community health issues. Family practice resident physicians must become competent in the application of the principles of COPC. It is important that family medicine educators teach COPC in a consistent manner to ensure that COPC can achieve its full potential to provide high-quality health care to all communities. With increased emphasis in the United States on population-based medicine and outcomes research, family medicine graduates must be prepared to participate effectively in community health programs. Educators as a group must determine what steps are involved in preparing physicians for COPC and plan realistic educational programs.

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