

Physician Health Promotion Training Activities in Primary Care: A Survey of the Military Residencies

Wayne B. Jonas, LTC, MC, USA

Background: The central role of primary care physicians in health care management, as well as their influence on patients at the highest risk for life-style related disease, makes adequate training in office and hospital health promotion activities essential.

Methods: A questionnaire adapted from one used nationally was sent to all the military training programs in internal medicine, family practice, pediatrics, and obstetrics-gynecology. The questionnaire addressed areas of content, emphasis, facilities, setting, personnel, techniques, and methods used in teaching, as well as priorities placed on health promotion in general and in specific areas.

Results: A response was obtained from all training programs (n = 59). Overall, 85 percent had set aside specific time to teach health promotion topics, and 81 percent had set aside time to teach preventive screening. Health promotion topics were incorporated by 85 percent of the programs, and preventive service topics were included in the core curriculum in 86 percent. In 63 percent of the programs residents were taught about assessment of patient motivation, but behavioral modification, relapse prevention, and self-efficacy skills were taught in less than one half of the programs (47, 37, and 34 percent, respectively). For the most part, programs stressed the traditional teaching techniques, such as discussion and lectures (93 percent and 92 percent, respectively), and rarely applied the more effective (and labor-intensive) methods of case precepting (58 percent), viewing videotaped cases (24 percent), and role-playing (5 percent). Only 41 percent of the programs had patient education materials readily available, but many (65 percent) had modified patient problem lists to include preventive or health promotion topics. Physician or patient reminders were used by only a few programs (35 percent and 17 percent, respectively), and in only 48 percent were the residents trained to use any health-screening or health risk appraisal questionnaire. Programs overwhelmingly relied on their physician staff and residents to do health promotion teaching and made little use of ancillary health care personnel who might be better trained in patient education methods.

Conclusions: Primary care residency programs emphasize teaching health promotion and preventive services but generally have not yet developed the teaching systems to provide residents with skills training in preventive and health promotion services. Programs could enhance the clinical prevention skills of physicians completing residencies by having the physicians focus on the skills needed to teach patients self-efficacy, behavior modification, and health maintenance, by using physician and patient reminders, and by taking advantage of health care personnel trained in health education. (J Am Board Fam Pract 1997;10:104-10.)

The importance of health promotion and disease prevention is increasing in medicine, especially for the primary care physician. At the federal level interest in health promotion and health education has been expressed through hearings and in such

publications as *Healthy People: The Surgeon General's Report On Health Promotion and Disease Prevention, Promoting Health/ Preventing Disease: Objectives for the Nation*, and the US Preventive Services Task Force *Guide to Clinical Preventive Services*, which is intended primarily for physicians.¹⁻⁴ Interest in prevention in the military is also growing, and the Department of Defense (DOD) has outlined its health promotion goals in directive 1010.10. Legal and economic forces are further pressing for increased community and health care profession involvement in health promotion activities.⁵

Not only do primary care physicians have a

Submitted, revised, 15 April 1996.

From the Office of Alternative Medicine, National Institute of Health, Bethesda, Md. Address reprint requests to Wayne B. Jonas, MD, Building 31, 58-38, 9000 Rockville Pike, Bethesda, MD 20892.

The views, opinions, and assertions expressed in this article are those of the author and do not reflect official policy of the Department of the Army, Department of Defense, or the US Government.

central role in the health care management of patients at highest risk for chronic lifestyle-related diseases, they also have extensive contact with those who most need risk factor assessment and health education. For example, an estimated 70 percent of all smokers will visit their physicians each year, often several times.⁶ Because patients consider their physicians to be the most reliable source of health information, and because most would trust and follow their personal physician's advice before they would the recommendations of a nationally recognized expert panel,⁷ a specific message from the physician directed at lifestyle change could have a considerable and lasting impact on patients' lives and health. In fact, a strong, well-timed, and specific message from a physician can have as much effect on lifestyle change as more extensive interventions by less influential people.⁸ Effective intervention, however, requires specific training not often taught to physicians.

A number of factors hinder office health promotion activities: (1) a lack of research in effective techniques for behavioral change,^{9,10} (2) the problem-oriented and short-term nature of the traditional office visit,¹¹ (3) the unavailable practical monitoring methods to assess the results of behavioral change and provide short-term feedback to physicians and patients,¹² and (4) poor reimbursement for preventive services and patient education activities.¹³

A major obstacle for office health promotion is inadequate training of physicians.¹⁴ Physicians lacking confidence in their own patient education skills often avoid addressing lifestyle topics in detail with patients. Primary care educators are usually not trained in clinical prevention, and they might be less interested in health promotion than those in clinical practice.¹⁵ As a result, medical students and residents interested in learning about clinical prevention must defer acquiring skills and risk losing their interest to other priorities during their training.¹⁶ Many physicians believe their role does not include patient education about lifestyle matters, and currently there is no consensus about physician responsibilities in providing clinical preventive services and health promotion activities.¹⁷⁻²⁰

Because it is essential that physicians be trained to deliver clinical preventive services, we wanted to know about the specific health promotion training activities that were being incorporated

into primary care physician teaching programs. Our study was undertaken to better understand the current status of patient education, health promotion, and preventive service training in military primary care residency programs and to distinguish the specific strengths or weaknesses of those health promotion training activities.

Methods

A questionnaire assessing both the process and content of health promotion and preventive services training was sent to all 59 military primary care residency training programs. Process assessment measures of the questionnaire were derived from those tested and administered by the Patient Education Consortium (PEC), Department of Community Health, Trinity Lutheran Hospital of Kansas City, Mo.²¹ The PEC surveyed all civilian family practice training programs in the United States. Content on health promotion was derived from recommendations of the US Preventive Services Task Force *Guide to Clinical Preventive Services*.⁴ Modifications for specialty requirements were made for the final questionnaire. Preliminary tests and modifications were made at a family practice residency site before distribution to other training programs.

The survey questions included global assessments of the patient education, health promotion, and preventive services training activities for each program. Questions about who was trained and by which members of the staff, the use of an adult health maintenance checklist, and attitudes about inpatient and outpatient health promotion clinics were included. In addition, specific questions about the settings, methods, techniques, and skills relevant to patient education and health promotion were asked. Finally, each program director was asked to rate the emphasis placed by his program on 33 content areas relevant to prevention and health promotion taken from the *Guide to Clinical Preventive Services*.⁴

The questionnaire was mailed to all military training program directors in internal medicine, family practice, pediatrics, and obstetrics-gynecology. These programs are responsible for educating more than 1500 medical students, residents, fellows, and other health care personnel. Ambiguous or incomplete responses were followed up by telephone interview for clarification. Descriptive analysis was done for all responses.

Table 1. Percentage of Military (n = 59) Compared With Civilian (n = 197) Primary Care Residency Programs Offering Health Promotion Training Activities.

Training Item	Military Programs	Civilian Programs*
Core curriculum		
Designated time for health promotion	85	77
Designated time for preventive services	81	NA
Health promotion in core curriculum	85	NA
Preventive services in core curriculum	86	NA
Health promotion skills		
Compliance enhancement	85	—
Needs identification	68	78
Motivation skills	63	NA
Behavioral barriers management	51	NA
Behavioral modification	47	67
Relapse prevention	37	54
Self-care skills	34	38
Teaching techniques		
Discussion	93	NA
Lectures	92	NA
Chart audit	78	NA
Precepting	58	NA
Case studies	42	NA
Videotape	24	NA
Role-playing	5	NA

* From the Patient Education Consortium survey of civilian family practice residencies.²¹

NA = not available.

Selected areas were analyzed by specialty. Direct comparisons were made for questions identical to those in the PEC Health Consortium Survey, and indirect comparisons were made for selected questions providing similar data.

Results

All 59 program directors responded, and almost 70 percent of the questionnaires were filled out by department chiefs. Overall, in 85 percent of the residencies, specific time was set aside to teach health promotion topics, and in 81 percent, time was set aside to teach preventive screening. Most, 85 percent, of the directors reported their programs had incorporated health promotion topics, and 86 percent said they included preventive service topics in their core curriculum. This finding compares favorably with the PEC data, in which 77 percent of responding residencies had specific time set aside for health promotion (Table 1).

On questions about the specific skills, methods, and techniques known to be efficacious for health promotion training, however, results were less encouraging. Slightly more than one half (63 percent) of the programs taught residents about assessment of patient motivation, and less than one half addressed behavioral modification and relapse prevention skills (47 percent and 37 percent, respectively). Programs stressed the traditional techniques of teaching, such as discussion and lectures (93 and 92 percent, respectively) and rarely used the more effective (and labor-intensive) methods of precepting (58 percent), videotaped cases (24 percent), and role-playing (5 percent) (Table 1).

By specialty, pediatric residencies had the most emphasis overall (79 percent of the maximum possible score) and used the most training methods (71 percent of maximum) for their residents. In contrast, obstetrics-gynecology programs reported the second strongest emphasis overall (71 percent of maximum) yet had the second to the fewest developed methods for teaching health promotion (51 percent of maximum) after internal medicine (49 percent of maximum). Family practice residencies emphasized these areas to nearly the same degree as the obstetrics-gynecology programs (70 percent of maximum) but used considerably more training methods (70 percent of maximum) (Table 2).

With regard to specific techniques in patient education, only one program in each of the internal medicine and obstetrics-gynecology residencies trained residents in methods of relapse prevention, whereas 69 percent of the family practice and 64 percent of the pediatrics programs offered

Table 2. Reported Emphasis and Teaching Activities (as Percentage of Maximum Score) in Health Promotion by Specialty.

Specialty	Overall Emphasis*	Teaching Activities†
Internal medicine	64	49
Family practice	70	70
Pediatrics	79	71
Obstetrics-gynecology	71	51

*Overall emphasis score was derived by dividing scores for each program by maximum possible score for that specialty.

†Teaching activities score was derived by dividing scores for all specific teaching skills and techniques reported by specialty and by maximum possible score for those skills and techniques.

some sort of instruction in this area compared with 54 percent in the PEC survey. Similarly, only 25 percent of the internal medicine and 15 percent of the obstetrics-gynecology programs offered any training in behavior modification skills compared with more than 75 percent of the family practice and more than 71 percent of the pediatrics programs (Table 2).

Training programs overwhelmingly placed the burden of teaching health promotion on the medical staff (97 percent) and residents (70 percent) while underutilizing other trained health care educators, such as nurses or physician assistants (49 percent), social workers (29 percent), or patient educators (12 percent). Only 41 percent of programs had patient education materials readily available, but many (65 percent) had modified their patient problem lists to include preventive or health promotion topics. Few programs, however, used physician or patient reminders (35 percent and 17 percent, respectively), and only 48 percent trained residents to use health-screening or health risk appraisal questionnaires, such as the Army Wellness Check (Table 3).

Most residency directors felt that their program could benefit from an outpatient health promotion clinic (estimated 50 to 150 referrals per week), and almost all program directors (95 percent), except those in obstetrics-gynecology (39 percent), responded that such a clinic should be an elective for residents. More than 88 percent thought that an inpatient lifestyle therapy program for selected patients with established lifestyle-related diseases would be useful, and 62 percent thought such a program would be useful for resident training.

Discussion

Overall, training of primary care physicians in the military for health promotion and preventive screening activities compares favorably with that in civilian residencies.²¹⁻²³ Results of this survey were similar to the results of the PEC survey of family practice residencies for health promotion and patient education. Some differences between the two surveys were that the PEC involved only family practice residencies or departments and had a response rate of 42 percent ($n = 197$) compared with a 100 percent response rate from four specialties in our survey ($n = 59$). One might expect that respondents in the PEC survey would

Table 3. Teachers of and Organizational Modifications in Health Promotion Training in Army Primary Care Residencies ($n = 59$).

Training Item	Percent
Teachers of health promotion activities	
Staff physicians	97
Resident physicians	70
Nurses or physician assistants	49
Social workers	29
Patient educators	12
Organizational modifications	
Posters, handouts	76
Problem lists with preventive or health promotion topics	65
Health maintenance checklist	65
Health risk appraisal form	48
Patient education materials	41
Physician reminders	35
Staff health promotion activities	27
Patient reminders	17

have had an above-average interest in health promotion training either because of response bias or because family practice physicians traditionally express more interest in patient education and prevention than many other specialties.

There were important discrepancies between perceived program emphasis and the degree of program development. For example, few teaching techniques for health promotion were developed in obstetrics-gynecology residencies, where a high degree of emphasis was indicated. Conversely, although family practice residencies had less emphasis on their health promotion activities, they had a greater number of established teaching methods. These discrepancies are even more apparent when specific methods for patient education and motivation are examined. For example, success in smoking cessation intervention requires some knowledge of relapse prevention and behavior modification, yet, almost none of the internal medicine or obstetrics-gynecology programs offered any resident training in these areas. Thus, training in key skills known to be important for behavior change was often lacking.

The main weakness of this type of survey is that it relies on self-report. In an attempt to validate the questionnaire reports, follow-up telephone calls were made to the five high- and low-scoring programs. These calls did not uncover any evidence of inaccurate reporting of program activities based on either enthusiasm or apathy for the subject matter. In addition, most of the question-

Table 4. Elements in Designing Health Promotion Training for Residents.**Health Maintenance Checklist**

- Establish a health maintenance checklist or modification of the problem list for all patient charts
- Conduct periodic classes to train physicians and staff in proper use of the checklist
- Incorporate the checklist into routine chart audits

Health Promotion Teaching

- Shift instructional responsibility for patient education and health promotion teaching of residents away from the physician faculty and residents
- Increase use of ancillary health care personnel, such as nurses, psychologists, and social workers, for health promotion teaching

Reminders

- Increase the use of patient and physician reminders for periodic preventive screening
- Develop a manual or automated preventive service tracking system for use by department staff

Health Risk Appraisal Assessment (HRAA)

- Have an HRAA available for patient and physician use
- Educate residents about the availability and utility of HRAAs
- Have a health promotion coordinator distribute periodic summaries of HRAA results from the community to department physicians

Department Health Promotion Program

- Have up-to-date, topic-specific, readily available patient education materials about health promotion and preventive services in the clinic, properly updated and maintained, and train residents in their use
- Have residents and faculty give talks to department staff and patient groups on risk factors and preventive screening
- Encourage staff to educate patients about the link between lifestyle and health when patients register and when the nurse records temperature, blood pressure, and heart rate. Provide specific instructions and handout materials (including the HRAA when appropriate) before the physician sees the patient
- Allow staff time and flexibility to engage in health-enhancing behaviors, such as participating in clinic stress-reduction programs and exercise

naires were filled out by department chiefs, lending some uniformity to response sources. Nevertheless, because surveys that rely on self-report usually overestimate activities, the actual amount of skills training in preventive services and health promotion offered by primary care residencies is probably even less than indicated here.

Several specific changes in primary care training programs could enhance the clinical preventive services skills of physicians completing those residencies. First, current patient education materials should be available. Only 41 percent of programs had up-to-date, readily available patient education materials in the clinic, a surprisingly low response for such a basic service. Second, more than 65 percent of programs used a modified problem list or health maintenance checklist for preventive service monitoring. Such lists can be helpful for monitoring preventive services but are rarely used by physicians even when they are available.^{24,25} Classes describing the proper use of these checklists might enhance their utility. Including these health maintenance checklists in chart audits (used by 65 percent of programs) could also encourage their use. Third, reminders are an effective way to increase delivery of preventive services, yet patient and physi-

cian reminders were used by only 17 percent and 35 percent of programs, respectively.^{12,20,25} Effective use of patient reminders often requires a level of automation not available in many practices. Programs for health promotion tracking in patient charts have been developed and are increasingly available.

Health care professionals who are personally engaged in health promotion activities are more likely to address those areas with patients.^{26,27} Twenty-seven percent of training programs in this survey had some type of health promotion program for their staff. Providing health promotion activities for the clinic, especially when involving the physicians, can bolster enthusiasm and morale of the staff and result in improved preventive services for patients. Finally, programs overwhelmingly relied on their physician staff and residents to teach health promotion and made little use of ancillary health care personnel who were better trained in patient education and motivation methods. By shifting the burden of health promotion training for physicians to these ancillary health care personnel, physicians would be free to concentrate on their role as patient motivators and allow others who are more qualified to do training in behavior modification, relapse

prevention, and self-care.^{12,24,28} Table 4 lists ways for enhancing health promotion and preventive services training in primary care residencies. Not all of the activities listed in Table 4 are required for every program, as each must be developed on an individual basis. Regardless of the elements adopted, residency training programs must have not only a systematic plan for teaching preventive services and health promotion skills but also methods to implement and evaluate the effectiveness of those activities.

Most of the residency directors in this survey thought that a model clinic for lifestyle therapy on both an inpatient and outpatient basis would be beneficial. More research on and evaluation of such lifestyle therapy models in clinical care are needed as the medical establishment seeks alternatives to the current biomedical approach to chronic disease. Primary care residencies could take the lead in developing such models and so fill the gap in health promotion skill training and delivery. By accepting their role as patient motivators and by increasing their skills in delivery of preventive services, family physicians can contribute to quality of life for patients and their families and reduce health care costs.²⁹

References

1. Healthy people: the Surgeon General's report on health promotion and disease prevention. Washington, DC: DHEW, Public Health Service, 1979.
2. The 1990 health objectives for the nation: a mid-course review. Washington, DC: DHHS, Public Health Service, Office of Disease Prevention and Health Promotion, 1986.
3. Promoting health, preventing disease: objectives for the nation. Washington, DC: DHHS, Public Health Service, 1980.
4. Guide to Clinical Preventive Services: Report of the US Preventive Services Task Force. Baltimore: Williams & Wilkins, 1989.
5. Bartlett EE. How can patient education help attain the objectives for the nation? *Am J Prev Med* 1989;5:230-9.
6. Health promotion. USPHS Series 10. No. 144. Washington, DC: US Department of Health and Human Services, 1980. (PHS publication no. PHS 83-1572.)
7. Green LW, Eriksen MP, Schor EL. Preventive practices by physicians: behavioral determinants and potential interventions. *Am J Prev Med* 1988;4:101-10.
8. Ockene JK. Physician-delivered interventions for smoking cessation: strategies for increasing effectiveness. *Prev Med* 1987;16:723-37.
9. Cowen EL. Primary prevention research: barriers, needs and opportunities. *J Prim Prev* 1982;2:131-7.
10. Flay BR. Efficacy and effectiveness trials (and other phases of research) in the development of health promotion programs. *Prev Med* 1986;15:451-74.
11. Nutting PA. Health promotion in primary medical care: problems and potential. *Prev Med* 1986;15: 537-48.
12. Pels RJ, Bor DH, Lawrence RS. Decision making for introducing clinical preventive services. *Annu Rev Public Health* 1989;10:363-83.
13. Davis K, Bialek R, Parkinson M, Smith J, Vellozzi C. Paying for preventive care: moving the debate forward. *Am J Prev Med* 1990;6:7-30.
14. Jonas S. Health-oriented physician education. *Prev Med* 1981;10:700-9.
15. Horowitz MM, Byrd JC, Gruchow HW. Attitudes of faculty members, residents, students, and community physicians toward health promotion. *J Med Educ* 1987;62:931-4.
16. Attarian L, Fleming M, Barron P, Strecher V. A comparison of health promotion practices of general practitioners and residency trained family physicians. *J Community Health* 1987;12:31-9.
17. Relman AS. Encouraging the practice of preventive medicine and health promotion. *Public Health Rep* 1982;97:216-9.
18. Wechsler H, Levine S, Idelson RK, Rohman M, Taylor JO. The physician's role in health promotion—a survey of primary care practitioners. *N Engl J Med*. 1983;308:97-100.
19. Mann VM, Putman RW. Physicians' perceptions of their role in cardiovascular risk reduction. *Prev Med* 1989;18:45-58.
20. Kotte TE, Solberg LI, Brekke ML. Initiation and maintenance of patient behavioral change: what is the role of the physician? In Ford DE, Whelton PK, Gordis L. *Frontiers in disease prevention: a national conference on the impact of the US Preventive Services Task Force guidelines*, 5-6 June 1989. Philadelphia: Hanley & Belfus, 1990.
21. Patient Education Consortium. The patient education consortium survey on health promotion of family practice departments and residencies. Kansas City, Mo: Trinity Lutheran Hospital of Kansas City, 1988.
22. Preventive medicine in general internal medicine residency training. Preventive Health Care Committee, Society for Research and Education in Primary Care Internal Medicine. *Ann Intern Med* 1985;102:859-61.
23. Rakecki RE, Brunton SA. Health promotion/disease prevention in family practice residency training: results of a national survey. *Fam Med* 1992;24:534-7.
24. Cohen DI, Littenberg B, Wetzel C, Neuhauser D.

- Improving physician compliance with preventive medicine guidelines. *Med Care* 1982;20:1040-5.
25. Goldenberg K. Periodic health examination: comparison of residency programs and national recommendations. *J Gen Intern Med* 1986;1:282-6.
 26. Wells KB, Lewis CE, Leake B, Ware JL. Do physicians preach what they practice? A study of physicians' health habits and counseling practices. *JAMA* 1984;252:2846-8.
 27. Maheux B, Pineault R, Lambert J, Beland F, Berthiaume M. Factors influencing physicians' preventive practices. *Am J Prev Med* 1989;5:201-6.
 28. Barker WH. Teaching preventive medicine in primary care. New York: Springer-Verlag, 1983.
 29. Belcher DW, Berg AO, Inui TS. Practical approaches to providing better preventive care: are physicians a problem or a solution? *Am J Prev Med* 1989;4:27-48.