

Attitudes of Faculty Members, Residents, Students, And Community Physicians Toward Health Promotion

By: Mary M. Horowitz, M.D., James C. Byrd, M.D., and [Harvey W. Gruchow, Ph.D.](#)

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Article:

A growing body of evidence links personal behaviors to many chronic diseases and increased mortality (1, 2). The 1979 U.S. surgeon general's report (3) identified the following behavioral changes as desirable to promote health in the American population: elimination of smoking; decreased consumption of alcohol, excess calories, saturated fat, cholesterol, salt, and sugar; increased exercise; periodic health screening; and regular use of seatbelts.

Physicians, through delivery of routine medical care, have an opportunity to influence the personal health habits of their patients. Several studies (4-6) have demonstrated, however, that while community physicians consider it important for patients to modify their behavior, they do not spend much time counseling them to do so. Medical education places little emphasis on health counseling. Physicians leave their residencies feeling under-trained in patient management and unprepared to counsel patients regarding behaviors that affect their health (7, 8). The emphasis in academic health centers on inpatient care, complex illnesses, and "high tech" medicine may fail to convey to trainees the importance of personal behaviors for the health of the average person.

If society expects physicians to intervene more to modify their patients' behavior and thereby promote health, it must ensure that they are trained to do so. Such training requires medical school faculty members who believe that changing patients' behavior is desirable and who are themselves skilled in counseling. The purpose of the study reported here was to determine the attitudes toward health promotion of a group of academic physicians involved in teaching residents and students and to determine whether these attitudes differed significantly from those reported by medical students, residents, and community physicians.

Methods

In 1985 a questionnaire modified from that used by Wechsler and colleagues (4) was distributed to all full-time faculty members in the Department of Medicine and all freshman medical students at the Medical College of Wisconsin and to all internal medicine residents in the Medical College of Wisconsin Affiliated Hospitals. Eighty-nine (84 percent) of the 106 faculty members, 91 (97 percent) of the 94 residents, and 194 (96 percent) of the 202 students returned completed questionnaires.

The questionnaire asked the respondents whether they felt it was worthwhile to attempt to modify patients' behavior to minimize risk factors; to rate each of 22 specific behaviors for their importance in promoting the health of the average person; to describe how prepared they felt to counsel patients regarding smoking, alcohol use, diet, exercise, and stress. Responses were given on a 4-point Likert-type scale ranging from 1 = definitely to 4 = definitely not, from 1 = very important to 4 = very unimportant, and 1 = very prepared to 4 = very unprepared, respectively. Scores for community physicians were derived from reports published by Wechsler and colleagues (4) of physicians in Massachusetts and Sobal and colleagues (5) of physicians in Maryland. The mean scores for each group of respondents were compared using the Mann-Whitney test, which does not require the assumption of a normal distribution of responses. The mean scores for feeling prepared to counsel patients were tested for a linear trend with increasing level of training.

Results

The average age of the respondents was: students, 24.3 (S.D. = 3.5); residents, 28.2 (S.D. = 2.7); faculty members, 42.9 (S.D. = 10) years. Sixty-four percent of the students, 81 percent of the residents and 89 percent of the faculty members who responded were male. The median year of graduation from medical school for faculty members was 1971.

Most respondents (98 percent) felt that it was definitely (73 percent) or probably (25 percent) worthwhile to modify patients' behavior in order to minimize risk factors. Table 1 lists the mean scores given the 22 behaviors by each group of respondents and the mean scores from the two previous surveys of community physicians. Most in each group felt that it was very important to eliminate cigarette smoking. There was little agreement regarding other items, however.

The students attributed significantly more importance than did the faculty members to 10 of the 22 behaviors and less importance only to use of seat belts. The residents were more similar to faculty members than to the students in that they attributed significantly more importance than the faculty members to only five behaviors and less to only one. Of the community physicians, the Massachusetts physicians attributed significantly more importance than did faculty members to 11 behaviors, and the Maryland physicians attributed more importance to 16 behaviors. The behaviors felt to be more important by community rather than faculty physicians included avoiding excess calories, eating a balanced diet, avoiding saturated fats, and minimizing salt intake.

TABLE 1
Mean Scores of the Importance of 22 Behaviors in Affecting Patients' Health as Rated by Internal Medicine Faculty Members and First-Year Students at the Medical College of Wisconsin and Internal Medicine Residents Affiliated with the College and by Community Physicians in Massachusetts and Maryland, 1985*

Behaviors	Faculty Members (n = 86)	Residents (n = 91)	Students (n = 194)	Massachusetts Physicians† (n = 433)	Maryland Physicians‡ (n = 1487)
Eliminate cigarette smoking	1.04	1.02	1.09	1.08	1.03
Always wear seat belts	1.35	1.35	1.72††	1.54	1.25
Wear protective equipment/clothing around harmful substances	1.43	1.48	1.45	§	1.11**
Eliminate cigar smoking	1.61	1.77	1.56	1.98††	1.65
Avoid excess caloric intake	1.71	1.51	1.85	1.32**	1.18**
Know drug contents and side effects	1.73	1.81	1.66	1.56**	1.35**
Drink alcohol moderately	1.77	1.67	1.90	1.70	1.47
Eat balanced diet	1.84	1.70	1.63**	1.49**	1.24**
Eliminate pipe smoking	1.87	1.95	1.67**	2.04	1.72
Avoid high-cholesterol foods	1.92	1.77	1.76**	1.95	1.70**
Avoid unnecessary X rays	1.99	2.20††	1.63**	§	1.45**
Avoid saturated fats	1.96	1.94	1.86	1.75**	1.47**
Minimize salt intake	2.08	1.85**	2.07	1.72**	1.68**
Avoid undue stress	2.14	2.04	1.81**	1.86**	1.66**
Exercise three times a week	2.20	1.87**	1.98**	2.05	2.02
Limit caffeine intake	2.40	2.35	2.28	2.20**	2.01**
Get seven hours sleep a night	2.56	2.48	2.39	§	1.94**
Eat breakfast daily	2.58	2.48	2.48	2.16**	1.93**
Minimize sugar intake	2.65	2.41**	2.33**	2.20**	2.24**
Practice relaxation methods	2.73	2.46**	2.23**	2.45**	2.15**
Have an annual physical examina- tion	2.81	2.25	1.95**	2.36**	2.02**
Take vitamins	3.34	3.07**	2.70**	3.37	3.10**

* Respondents rated the importance on a scale of 1 = very important, 2 = important, 3 = unimportant, and 4 = very unimportant.

† Scores reported by Wechsler and colleagues (4).

‡ Scores reported by Sobal and colleagues (5).

§ Item not included in questionnaire.

** Rated as significantly more important than rated by faculty members (Mann-Whitney, $p < .05$).

†† Rated as significantly less important than rated by faculty members (Mann-Whitney, $p < .05$).

Of the three groups of respondents surveyed at the college, the students were least likely, the residents more likely, and the faculty members most likely to feel prepared to counsel patients regarding smoking, alcohol,

diet, and exercise (p for linear trend $< .01$). The faculty members were no more likely than the trainees to feel prepared to counsel about stress. The percentages of faculty members who felt very prepared to counsel patients were 43 percent for smoking, 34 percent for alcohol, 24 percent for exercise, 22 percent for diet, and 13 percent for stress. The mean scores indicated that the faculty members felt significantly less prepared than the Massachusetts community physicians to counsel patients regarding smoking (1.62 versus 1.45, respectively; $p < .02$), alcohol (1.74 versus 1.56, respectively; $p < .02$), diet (2.05 versus 1.71, respectively; $p < .001$), exercise (1.93 versus 1.67, respectively; $p < .001$), and stress (2.45 versus 1.85, respectively; $p < .0001$).

Discussion

It appears from the data presented here that academic physicians were less likely than the community physicians to attribute importance to many of the behavioral changes advocated by the surgeon general. Moreover, increasing level of training was associated with a decrease in the importance attributed to promotion of healthful behaviors. Although the value of some of the behaviors listed is debated, the faculty members attributed less importance than the trainees or community physicians to a number of healthful habits, such as regular exercise and avoiding saturated fat, that have substantial support in the medical literature. The less favorable attitude of both faculty and house staff members may be due to the type of patients cared for in academic medical centers, which serve a disproportionate number of patients with advanced and complicated health problems. Measures that have as their primary aim prevention of disease may assume less importance in this setting. In addition, most teaching takes place on inpatient wards where diagnostic and therapeutic interventions routinely take precedence over patient education, especially where early discharge is encouraged. In the authors' opinion, disturbingly few of the faculty members felt very prepared to counsel patients. If teaching faculty members neither feel that health promotion is important nor feel prepared to counsel their patients regarding lifestyle changes, it will continue to be difficult for students and residents to become competent health counselors.

References

1. BELLOC, N. B., and BRESLOW, L. Relationship of Physical Health Status and Health Practices. *Prey. Med.*, 1:409-421, 1972.
2. BRESLOW, L., and ENSTROM, J. E. Persistence of Health Habits and Their Relationship to Mortality. *Prey. Med.*, 9:469-483, 1980.
3. *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* (DREW publication no. [PHS] 79-SS071). Washington, D.C. Government Printing Office, 1979.
4. WECHSLER, H., LEVINE, S., IDELSON, R. K., ROHMAN, M., and TAYLOR, J. O. The Physician's Role in Health Promotion—A Survey of Primary-Care Practitioners. *N. Engl. J. Med.*, 308:97-100, 1983.
5. SOBAL, J., VALENTE, C. M., MUNCIE, H. L., LEVINE, D. M., and DEFORGE, B. R. Physicians' Beliefs About the Importance of 25 Health Promoting Behaviors. *Am. J. Public Health*, 75:1427-1428, 1985.
6. WELLS, K. B., LEWIS, C. E., LEAKE, B., and WARE, JR., J. E. Do Physicians Preach what they Practice? A Study of Physicians' Health Habits and Counseling Practices. *J.A.M.A.*, 252:2846-2848, 1984.
7. KERN, D. C., PARRINO, T. A., and KORST, D. R. The Lasting Value of Clinical Skills. *J.A.M.A.*, 254:70-76, 1985.
8. LINN, L. S., BROOK, R. H., CLARK, V. A., FINK, A., and KOSECOFF, J. Evaluation of Ambulatory Care Training by Graduates of Internal Medicine Residencies. *J. Med. Educ.*, 61:293-302, 1986.