PRACTICE OBSERVED

Are general practitioners doing enough to promote healthy lifestyle? Findings of the Medical Research Council's general practice research framework study on lifestyle and health

PG WALLACE, PJ BRENNAN, A PHAINES

Abstract

The health survey questionnaire was used to collect information about cigarette smoking, alcohol consumption, physical exercise, and dieting and weight. Completed questionnaires were received from 25 496 men and 36 657 women registered with 47 group practices in England and Scotland. The proportions of respondents who stated that they had a problem ranged from 1% (women and drinking, n=406) to 34% (women and weight, n=12526). Between 49% (women and drinking, n=18048) and 67% (men (n=17095) and women (n=24550) and weight) thought that their general practitioners should be interested in their lifestyle. The proportions who could recall having received relevant advice ranged from 2% (women and drinking, n=591) to 24% (women and weight, n=8946). Advice about smoking had been given to 4055 (40%) of the women and 2941 (39%) of the men who smoked. Only 96 (10%) of the 989 women and 331 (17%) of the 1948 men who drank excessively could recall having received advice about alcohol consumption.

These results suggest that patients are concerned about their lifestyle, that most would welcome relevant counselling, and that doctors should become more concerned with prevention of this kind.

Introduction

Most general practitioners regard the promotion of a healthy lifestyle as important, while the general public regards doctors as the best and most credible source of health information.23 Advice to stop smoking from general practitioners has been shown in several studies to result in small but important reductions in smoking rates among patients. 46 We therefore thought that advice about the other

Medical Research Council Epidemiology and Medical Care Unit, Northwick Park Hospital, Harrow, Middlesex HA1 3UJ

PG WALLACE, MSC, MRCGP, research fellow P J BRENNAN, MSC, statistician A P HAINES, MD, MRCGP, consultant epidemiologist

Correspondence to: Dr P G Wallace, Department of General Practice, St Mary's Hospital Medical School, Lisson Grove Health Centre, London NW8 8EG.

aspects of lifestyle might similarly influence patients' behaviour. The principal objective of the study on lifestyle and health was to test this hypothesis with respect to alcohol consumption. Information on other aspects of lifestyle was collected both because of its intrinsic interest and because questionnaires obtain more accurate estimates of alcohol consumption when additional questions not related to drinking are included.7

Little is known about patients' attitudes to inquiry by general practitioners about their lifestyle. The results of a previous study that we carried out with patients registered at two practices in inner London indicated that a substantial majority expected their general practitioners to be interested in their lifestyle but that there was considerable scope for increasing the emphasis on health promotion in these practices.8

The study on lifestyle and health presented an opportunity to determine to what extent these findings could be extended to a variety of general practices.

Patients and methods

The health survey questionnaire is a self administered questionnaire that includes questions on alcohol consumption, cigarette smoking, physical exercise, and dieting and weight. The first section consists of quantity/ frequency scales that relate to each of the four aspects of lifestyle. Three other questions relevant to this report were: (1) In your opinion should your general practitioner be interested in your (a) weight, (b) smoking habits, (c)drinking habits, (d) exercise habits? (2) As far as you can remember have you ever received advice from your general practitioner about your (a) weight, (b) smoking habits, (c) drinking habits, (d) fitness? (3) Do you think you currently have a (a) weight problem, (b) smoking problem, (c) drinking problem, (d) fitness problem? The response options in each case were definitely, probably, no, and don't know.

Forty seven group practices in England and Scotland participated in the survey. The mode of distribution of the questionnaire (by post or as a handout) was decided by the practices. In 23 practices it was posted to 2000 patients aged 17-69 inclusive who were randomly selected from the age-sex register by a system of proportional sampling by year of birth. Each patient was posted a copy of the questionnaire, a covering letter signed by the general practitioner, and a Freepost envelope addressed to the practice. Reminder letters were sent to non-respondents four weeks after the initial posting. In the remaining 24 practices the questionnaire was handed out over a period of up to seven months to patients attending the surgery. Distribution was usually carried out by the receptionists but in a few cases by the nurse and general practitioners.

Questionnaire responses were coded and double checked before being analysed by computer.

Results

In the 23 practices that distributed the questionnaire by post 23 413 women and 22 116 men were selected as recipients. Envelopes were returned marked "unknown at this address" in the case of 1652 (7%) of the women and 1653 (8%) of the men. Of the remainder, 17 999 (83%) of the women and 15 984 (78%) of the men returned the questionnaire. The response rate in the different practices ranged from 65% to 83% (67% to 90% when those patients not known at the address were excluded). Estimates of the numbers of questionnaires handed out in the remaining 24 practices ranged from 610 to 2000. The number related not only to the size of the practice but also to the amount of time that the receptionists were able to devote to the study. The estimated proportions of questionnaires completed and returned by the patients ranged from 45% to 99%. Completed copies were returned from 9512 men and 18 658 women.

There were no systematic differences between responses from the patients who had received a questionnaire at the surgery and those who had had them posted. The completion rates for the different questions varied from 89% (women and "Should your general practitioner be interested in your drinking habits?"; n=32551) to 97% (men and "Have you ever received advice about your weight?"; n=24615). In general, proportionately more of the younger patients responded to each of the questions.

LIFESTYLE HABITS IN PAST THREE MONTHS (table I)

Overall more than twice as many women as men had been dieting to lose weight. Among the women the highest proportions of current smokers and drinkers were found in the teenage group, while among the men the proportions were highest in the 20-29 age group. In both sexes more of the younger patients had been exercising to get fit or keep fit.

RESPONSES TO "SHOULD YOUR GENERAL PRACTITIONER BE INTERESTED?"

When the patients were asked whether their general practitioner should be interested in their lifestyle the proportion who gave a positive response, in both sexes, was highest for weight and lowest for drinking (table II). Except in the case of weight proportionately more of the men expected their general practitioners to be interested. Among both sexes expectations of interest in all four aspects of lifestyle were highest in the 30-39 age group and lowest in the 60-69 age group, except among men in the case of weight, when those aged 17-19 expressed the lowest expectation of interest.

RESPONSES TO "HAVE YOU EVER RECEIVED ADVICE?"

More patients recalled having received advice about weight than about any of the other aspects of lifestyle, and few had been given advice about drinking (table II). Except in the case of weight consistently greater proportions of men than women stated that they had been given advice. The proportions who had received advice were, not unexpectedly, generally lowest in the youngest age groups: among those aged 17-19 only 10 (1%) of the 1014 men and 17 (1%) of the 1319 women stated that they had received advice on drinking. Conversely, the largest proportions of patients who had received advice were among the oldest age group (60-69): 1674 (28%) of the 5930 women and 1261 (25%) of the 5056 men in this age group stated that they had received advice on weight.

Of the 7500 men who were current smokers, 2003 (27%) had definitely and 938 (13%) probably received advice. For the 10110 women who were current smokers the figures were 2623 (26%) and 1432 (14%), respectively.

TABLE II—Numbers (percentages) of patients who thought that their general practitioner should be interested in their lifestyle and who had received advice

	M	en	Women		
•	Definitely	Probably	Definitely	Probably	
	"Should y	our general practitioner	be interested?"		
Weight	10 563 (41)	6532 (26)	14 360 (39)	10 190 (28)	
Smoking	11 836 (46)	4196 (17)	14 631 (40)	6 188 (17)	
Drinking	9210 (36)	5229 (21)	11 879 (32)	6 169 (17)	
Exercise	7771 (31)	7699 (30)	8 250 (23)	11 114 (30)	
	"Have you ever re	ceived advice from you	r general practitioner?"		
Weight	2996 (12)	1281 (5)	6 283 (17)	2663(7)	
Smoking	3 379 (13)	1341 (5)	3 370 (9)	1660(5)	
Drinking	928 (4)	554(2)	373(1)	213 (<1)	
Exercise	1 435 (6)	1367 (5)	1 095 (3)	1 257 (3)	

TABLE III—Numbers (percentages) of patients who thought that they had a problem

	М	en	Women		
·	Definitely	Probably	Definitely	Probably	
Weight	2136 (8)	4043 (16)	3 (16) 6130 (17)		
Smoking	1967 (8)	2324 (9)	2772 (8)	2879 (8)	
Drinking	154 (<1)	664 (3)	89 (<1)	317 (<1)	
Exercise	1684 (7)	5631 (22)	2230 (6)	8117 (22)	

Of the 4720 men and 5030 women who had ever received advice about their smoking, 1779 (38%) and 975 (19%), respectively, denied having smoked in the three months before completing the questionnaire.

Altogether 21 312 men and 25 378 women had drunk alcohol in the three months before completing the questionnaire. Of the men, 805 (4%) had definitely and 525 (3%) had probably received advice, while for the women the figures were 280 (1%) and 185 (0·7%), respectively. The proportions who had received advice were higher among the heavier drinkers but still constituted only a fairly small minority. Of the 1948 men who had been drinking at least 35 units/week and the 989 women who had been drinking at least 21 units/week, only 331 (17%) and 96 (10%), respectively, had received advice. Of the 1482 men and 591 women who had ever received advice about their alcohol consumption, 152 (10%) men and 126 (21%) women denied having drunk alcohol in the three months before completing the questionnaire.

RESPONSES TO "DO YOU THINK YOU CURRENTLY HAVE A PROBLEM?"

Slightly greater proportions of men than women saw themselves as having smoking, drinking, or fitness problems (table III), whereas a greater proportion of women than men thought they had a weight problem. Of the 18 705 (30%) patients who thought they had a weight problem, 9030 (48%) had received advice from their general practitioner and 7843 (42%) had been dieting. (A further 4914 were dieting even though they did not believe that they had a weight problem.)

Of the 17 662 (28%) patients who by their own assessment had a fitness problem, 3165 (18%) had received advice from their general practitioner about their exercise habits and 5130 (29%) had been taking exercise to get fit or keep fit.

For both smoking and drinking there was a pronounced association between level of consumption and perception of a problem. Just over half of the smokers (n=9540) thought that they had a smoking problem, while the proportion who thought that they had a drinking problem was nearly three times higher among men than women (table IV). Of the 9942 patients who stated that they had a smoking problem and the 1224 with a drinking

TABLE I—Lifestyle habits in previous three months (figures are numbers (percentages) of patients)

Age of patients (years)	No of men	No of women	On a diet to lose weight		Taking exercise to get fit or keep fit		Smoking cigarettes		Drinking alcohol	
			Men	Women	Men	Women	Men	Women	Men	Women
17-19	1014	1319	56 (6)	304 (23)	526 (52)	523 (40)	336 (33)	496 (38)	856 (84)	1079 (82)
20-29	4611	7 7 3 5	421 (9)	2070 (27)	2225 (48)	3 130 (41)	1725 (37)	2 594 (34)	4 181 (91)	5 943 (77)
30-39	5 4 5 1	9 140	666 (12)	2615 (29)	2062 (38)	3 486 (38)	1743 (32)	2 558 (28)	4 873 (89)	7 047 (77)
40-49	4993	7 108	730 (15)	2115 (30)	1488 (30)	2 201 (31)	1499 (30)	1957 (28)	4 275 (86)	5 103 (72)
50-59	4371	5 425	683 (16)	1422 (26)	999 (23)	1 271 (23)	1089 (25)	1 294 (24)	3 480 (80)	3 338 (62)
60-69	5 056	5 930	655 (13)	1020 (17)	1225 (24)	1 212 (20)	1108 (22)	1211 (20)	3 647 (72)	2 868 (48)
Total	25 496	36 657	3211 (13)	9546 (26)	8525 (33)	11 823 (32)	7500 (29)	10 110 (28)	21 312 (84)	25 378 (69)

problem, 5363 (54%) and 417 (34%), respectively, stated that they had received advice.

TABLE IV-Numbers (percentages) of patients who thought they had a smoking or drinking problem related to consumption

	Men				Women		
•	No	Definitely	Probably	No	Definitely	Probably	
			Smoking				
No of cigarettes/da	av:						
1-9	2046	180 (9)	392 (19)	3 583	306 (9)	762 (21)	
10-19	2924	668 (23)	987 (34)	4319	1330 (31)	1488 (35)	
20-29	1728	704 (41)	566 (33)	1 660	865 (52)	470 (28)	
≥30	528	288 (55)	123 (23)	236	155 (66)	40 (17)	
Unclear response	274	45 (16)	55 (20)	312	55 (18)	61 (20)	
Non-smokers*		82 (<1)	201 (1)		61 (<1)	58 (<1)	
			Drinking				
No of units/week:			_				
0-6·9	10 173	20 (<1)	39 (<1)	19 447	22 (<1)	60 (<1)	
7-20-9	6583	24 (<1)	118(2)	4 942	12 (<1)	126 (3)	
21-34-9	2608	19 (<1)	178 (7)	734	23 (3)	71 (10)	
≥35	1948	91 (5)	329 (17)	255	32 (13)	60 (24)	

^{*}Figures in parentheses are percentages of total numbers of non-smokers (men=17996,

Discussion

The consistency with which the respondents of all ages replied to the questions in the questionnaire suggests that people are interested in lifestyle and support the role of the general practitioner in this aspect of preventive medicine. Proportionately more of the younger patients responded: this may reflect a greater familiarity with self administered questionnaires and possibly a greater interest in the questions being asked. In support of this last hypothesis is the finding that more of the younger patients expected their general practitioners to be interested in each of the four aspects of lifestyle.

The proportions of smokers among both the men and the women were lower than those found in the 1984 general household survey.9 Though this may be partly because the patients recruited to the study through the Medical Research Council's general practice research framework are not entirely representative of the United Kingdom population as a whole, it may also reflect the downward trend in smoking in this country. The finding that for both sexes the highest proportions of smokers were in the younger age groups, however, is disturbing.

Nearly one third of the respondents stated that they had been exercising regularly; in the interests of simplicity, however, the questionnaire did not ask about the nature of the exercise that had been taken. Thus some of those answering positively to this question had probably not been engaging in strenuous exercise of the kind suggested by several studies as being necessary to reduce the risk of developing coronary heart disease. Further information about this will emerge from data collected later in the study. The finding that many more women than men had been dieting is not surprising in view of pressures on women to be perceived as slim.

Most patients of both sexes thought that their general practitioners should be interested in their weight, smoking, and exercise habits. In the case of women and drinking habits, however, the proportion who believed that their general practitioners should be interested was under half. This may reflect the generally lower alcohol consumption of women compared with men and may also be the result of the considerable stigma attached to women's drinking. The finding that more of the patients thought that their doctors should be interested in their weight than in any of the three other aspects about which they were questioned probably reflects the importance that is attached to weight by the general public, possibly for cosmetic rather than health reasons.

Considerable proportions of the respondents indicated concern about at least one of the four aspects of lifestyle. Although the public health risks from smoking and drinking are probably greater than those attributable to lack of exercise or obesity (although both of these probably contribute to the risk of ischaemic heart disease), weight and fitness problems were perceived more commonly than

smoking and drinking problems. The strong relation between self assessment of smoking and drinking problems and stated level of consumption, however, suggests a general awareness among patients of the risks associated with these habits. No such relation was seen between perception of a fitness problem and frequency of exercise. As data were not collected about height or weight we could not relate perception of a weight problem to objective evidence of obesity (although for a random sample this will be possible in the future).

The proportions of patients who stated that they had received advice were considerably smaller than the proportions of those who expected their general practitioners to be interested in their lifestyle. A substantial proportion stated that they had received advice about smoking, but this was still under half, which suggests that there is considerable room for improvement. Advice on drinking had been given to few of the patients, although it had apparently been directed selectively towards those with higher consumption. Even so only 17% of the men and 10% of the women who according to their responses to the questionnaire were drinking excessively (35 units or more/week for men and 21 units or more/ week for women) reported having received advice.

Of the 9750 patients who stated that they had been given advice about their smoking, 2754 (28%) claimed to have stopped. Information was not sought about when such advice had been received or the patients' smoking habits at that time. Even assuming that the patients had all been smokers when the advice was given, we could not determine accurately its contribution to their decision to stop. None the less, the finding suggests that the general practitioners may have helped as many as 60 smokers in the study population in each practice to give up. The numbers in relation to drinking were much smaller and less relevant as probably only a few heavy drinkers were advised to stop drinking altogether.

Studies have shown that many patients fail to recall information given by doctors,10 and the proportions of patients who had actually received advice from their general practitioner may thus have been somewhat higher than indicated by the responses to the questionnaire. None the less, there seems to be a considerable discrepancy between patients' expectations of interest by their general practitioners in their lifestyle and their receipt of relevant advice. The practices that took part in the study are probably more active in promoting a healthy lifestyle than most, and so the discrepancy in general practice as a whole may be even larger. Thus there is considerable scope for greater emphasis by general practitioners on preventive work of this kind.

We thank all the general practitioners, nurses, and other staff at the 47 group practices for their invaluable help with the study; Dr T W Meade and Dr G Greenberg for their advice and support in the design and execution of the study; Mr M Singh for help with the data processing; and the staff of the Medical Research Council epidemiology and medical care unit and in particular Miss M Richards for her secretarial help. The study was generously supported by the Alcohol Education and Research Council, the Brewers Society, and the Medical Research Council.

References

1 Sobal J, Valente CM, Muncie HL, Levine DM, Deforge BR. Physicians' beliefs about the importance of 25 health promoting behaviors. Am J Public Health 1985;75:1427-8.

Weinberg A, Andrus PL. Continuing medical education: does it address prevention? J Community

Health 1982:7:211-4

- 3 McDill MS. Structure of social systems determining attitude, knowledge and behavior toward disease. In: Enclow AJ, Henderson JB, eds. Applying behavioral science to cardiovascular risk. Proceedings of a conference, Seattle, Washington. New York: American Heart Association, 1974:
- 4 Russell MAH, Wilson C, Taylor C, Baker CD. Effect of general practitioners' advice against
- Russell MAH, Wilson C, Taylor C, Baker CD. Effect of general practitioners' advice against smoking. Br Med J 1979;ii:231-5.
 Jamrozik K, Fowler G, Vessey M, Wald N. Placebo controlled trial of nicotine chewing gum in general practice. Br Med J 1984;289:794-7.
 Richmond R, Webster I. Evaluation of general practitioners' use of a smoking intervention programme. Int J Epidemiol 1985;14:396-401.
 Plant M, Miller Tl. Disguised and undisguised questionnaires compared: two alternative approaches to drinking behaviour surveys. Soc Psychiatry 1977;12:21-4.
 Wallace PG, Haines AP. General practitioner and health promotion: what patients think. Rr Med J 1984:780-534-6.
- Br Med J 1984;289:534-6. 9 Office of Population Censuses and Surveys. General household survey. London: HMSO, 1985.
- (OPCS Monitor. GHS 85/2.) Riecken HW, Ravich R. Informed consent to biomedical research in Veterans Administration hospitals. JAMA 1982;248:344-8.

(Accepted 5 February 1987)