Lifestyles and social class: implications for primary care

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SUMMARY. Data from the Oxford healthy life survey were used to explore social class variations in beliefs about the determinants of health, willingness to contemplate behaviour change and experience of lifestyle advice in primary care.

While the association between lifestyle factors and health was well-recognized by all social groups, those in social classes 1 and 2 were more likely than others to stress the importance of smoking, diet and exercise, while those in social classes 4 and 5 were more likely than middle class people to emphasize the effect of socioeconomic influences on health such as unemployment, income, pollution and housing. Members of all social classes attributed considerable importance to psychosocial influences on health. In all social classes a substantial proportion of overweight people expressed a desire to reduce their weight, smokers to modify their smoking habits and sedentary people to increase the amount of exercise they took. However, there was less interest in dietary change or reduction of alcohol consumption. One third of the smokers and of those who were overweight had received advice from health professionals about behaviour modification, but less than 10% of those in the other risk groups reported receiving advice. There was a high demand for advice on health; 44% of all respondents said they would be interested in receiving advice on a healthier lifestyle.

Introduction

THE growing interest in health promotion in primary care has coincided with an increased awareness that there are still major inequalities between the social classes in the health status of British people. It is clear that part of the explanation for the variation lies in the differences in 'unhealthy' or risk-taking behaviour.¹

Various theories have been advanced to explain these differences in health-related lifestyles. Some have argued that those involved in health education have failed to get their message across to working class people in clear and simple terms and that the problem is largely one of ignorance. Others have suggested that working-class people are more conservative and less willing to change than middle-class people — a problem of cultural difference. They are seen as more fatalistic and less likely to exhibit an internal 'locus of control', with a resulting lack of

The Oxford healthy life survey is the product of a collaboration between Oxford Regional Health Authority (Dr S. Horsley, Ms J. Griffiths), Northampton District Health Authority (Dr J. Cordingley, Dr P. Southern), Kettering District Health Authority (Dr J. Rodgers, Mrs J. Rodgers), Oxford University Department of Community Medicine and General Practice (Professor M. Vessey), Oxford Community Health Project (Dr J. Cowden, Mrs B. Martin) and Oxford University Unit of Clinical Epidemiology (Dr M. Goldacre, Ms A. Coulter).

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confidence to change their lives. A more optimistic approach uses the notion of 'cultural lag' to argue that working-class people will eventually follow the middle class trend towards healthy living.

These essentially individualist theories are challenged by those who argue that structural or socioeconomic factors are the major determinants of the differences. They invoke evidence that a healthy diet is relatively expensive for those on low incomes; smoking and alcohol consumption compensate for the stresses of living in a poor environment; recreation facilities are not as accessible to those without transport or to those with small children; health services tend to be of lower quality in more deprived areas; and successive governments have failed to curb the promotional activities of the tobacco, alcohol and food companies.

Clearly, if the promotion of healthier lifestyles is to be successful it must be based on an understanding of why people behave as they do. For this reason the health promotion programme being developed by the Oxford Regional Health Authority included an allocation of funds for a baseline survey.² In addition to investigating the prevalence of risk factors in a random sample of the population of the region, the Oxford healthy life survey included questions designed to elicit people's beliefs about the determinants of health, their experience of receiving lifestyle advice from professionals in primary care and their willingness to contemplate behaviour change.

Method

After extensive pilot studies the questionnaire was mailed in 1985–86 to a stratified random sample of 8107 men and women aged 18–64 years living in five of the eight district health authorities in the Oxford region. In four of the districts the sampling frame was general practitioners' age—sex registers and the questionnaire was sent with a covering letter on practice notepaper signed by the patient's general practitioner. In the fifth district the names were selected from the family practitioner committee register and the letter was signed by a community physician in the district health authority.

The questionnaire gave a list of factors and respondents rated the extent to which they considered each had an important effect on people's health. These were later grouped into factors relating to individual lifestyles, those emphasizing psychosocial influences and those pertaining to socio-environmental influences. Respondents were asked whether they wanted to and intended to change aspects of their lifestyle, whether they had received advice from a health professional in the previous 12 months on modifying their behaviour and whether they were interested in receiving advice on how to live a healthier life.

Social class was assigned according to the Register General's classification:³ that is, all men by their own occupation or most recent occupation if retired or unemployed; single, separated and divorced women by their own occupation; and married women by their husband's occupation.

The risk factors were defined as follows: smoker — current cigarette smoker; heavy drinker — reported consumption of more than 20 standard units of alcohol per week (men) or more than 15 standard units (women); sedentary lifestyle — participation in vigorous physical exercise less than once a month; overweight — body mass index (weight/height²) of more than

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Table 1. Percentage of respondents in each social class who rated specific factors as having a very important effect on health.

	Social class (% rating factor important)						
	1 (n = 284)	2 (n = 1616)	3N (n = 783)	3M (n = 2003)	4 (n = 834)	5 (n = 234)	Significance
Lifestyle factors							
Smoking	88	83	81	<i>75</i>	<i>73</i>	67	$\chi^2 = 69.7$, $P < 0.01$
Alcohol	44	49	51	47	47	49	
Exercise	49	48	43	37	36	43	$\chi^2 = 40.5$, $P < 0.01$
Weight	44	45	41	43	45	46	
Diet	62	63	61	<i>57</i>	54	55	$\chi^2 = 16.8$, $P < 0.01$
Psychosocial factors							
Stress	68	. 71	70	71	72	66	
Happiness	<i>58</i>	64	65	67	65	68	
Relationships	55	58	<i>53</i>	58	59	<i>59</i>	
Relaxation	48	51	51	<i>53</i>	<i>57</i>	55	$\chi^2 = 8.4, P < 0.01$
Sleep	31	38	36	46	46	54	$\chi^2 = 51.2$, $P < 0.01$
Socio-environmental facto	ors						
Unemployment	50	53	53	<i>63</i>	66	67	$\chi^2 = 63.0$, $P < 0.01$
Pollution	41	41	43	53	52	59	$\chi^2 = 57.1$, $P < 0.01$
Housing	40	39	41	49	54	60	$\hat{\chi}^2 = 75.3, P < 0.01$
Occupation	40	40	34	36	37	39	
Income	19	23	27	<i>37</i>	42	55	$\chi^2 = 181.4$, $P < 0.01$

2.5 (men) or 2.4 (women); unhealthy diet — reported consumption of diet high in saturated fat, low in fibre and high in sugar. Significance levels are based on chi-square tests for trend (one degree of freedom).

Results

The survey achieved a response rate of 81% (n = 6576). This paper reports the responses obtained from the 5754 respondents (71%) who provided sufficient details about occupation to be allocated a social class classification. This sample was representative of the social class distribution of the five districts from which it was drawn.

Factors affecting health

Table 1 shows the percentage in each social group who rated the various lifestyle factors as having a very important effect on people's health. Smoking was consistently given the highest rating by all social groups, but psychosocial factors such as stress and happiness were also rated highly. There were significant social class differences in the importance attached to some of the factors. Those in working class groups gave significantly higher ratings (P < 0.01) to socioeconomic and environmental factors such as unemployment, pollution, housing and income than did those in social classes 1 and 2 and they were also more likely to stress the importance of relaxation and sleep (P < 0.01). Conversely, those in non-manual groups were significantly more likely to rate highly the importance of individual lifestyle factors such as smoking, diet and exercise than did people in manual groups (P < 0.01).

Intention to change lifestyle

The people 'at risk' according to each lifestyle factor were identified; that is those who smoked, drank heavily, were sedentary, were overweight and ate an unhealthy diet. There were significant differences between the social classes in all the lifestyle factors. A higher proportion of the manual classes smoked cigarettes, were heavy drinkers (young men), led a sedentary lifestyle, were overweight (women) and ate an unhealthy diet.

Table 2 compares the proportions of 'at risk' people in the manual (3M, 4 and 5) and non-manual (1, 2 and 3N) social

Table 2. Percentage of 'at risk' respondents in manual and nonmanual classes who wanted to and intended to change their lifestyle, who wanted to but were unlikely to change and who did not want to change.

	Percentage of 'at risk' respondents	
	Non-manual classes	Manual classes
Smoking Intend to cut down/give up smoking Went to but unlikely to put down/give	(n = 615) 27	(n = 996) 25
Want to but unlikely to cut down/give up smoking Don't want to cut down/give up	55	55
smoking	18	20
Alcohol Intend to cut down/give up heavy	(n = 290)	(n = 412)
drinking Want to but unlikely to cut down/give	12	13
up heavy drinking Don't want to cut down/give up	28	31
heavy drinking	60	<i>56</i>
Exercise Intend to take more exercise Want to but unlikely to take more	(n = 1360) 31	(n = 1499) 24**
exercise	55	55
Don't want to take more exercise	14	21**
Weight	(n = 778)	(n = 1088)
Intend to lose weight	<i>59</i>	49**
Want to but unlikely to lose weight	<i>33</i>	37
Don't want to lose weight	9	14**
Diet	(n = 363)	(n = 679)
Intend to change diet	18	19
Want to but unlikely to change diet	35	33
Don't want to change diet	47	48

^{**}P<0.01. n = total number of respondents 'at risk' — that is, smokers, heavy drinkers, sedentary, overweight, eating unhealthy diet.

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classes who expressed an interest in modifying their lifestyle. More than half of those who were overweight said that they wanted to and intended to lose weight. Nearly a third of those leading sedentary lifestyles intended to take more exercise and a similar proportion of smokers said they intended to give up or cut down their smoking habit. More than half of those in the latter two risk groups said they wanted to modify their behaviour but felt that they were unlikely to succeed in doing so. However, half of the people reporting unhealthy diets said they did not want to change their eating habits and nearly twothirds of the heavy drinkers did not want to change. There were no significant differences between the social class groups in the intended lifestyle modifications of the smokers, heavy drinkers and unhealthy eaters, but those in the manual groups were less likely to want to lose weight ($\chi^2 = 16.7$, P < 0.01) or take more exercise ($\chi^2 = 18.3$, P < 0.01) than those in the non-manual groups.

Advice received

Of the 5754 respondents 13.3% said a health professional had given them advice about smoking in the previous 12 months and a similar proportion (13.2%) had received advice on weight reduction; 8.4% reported receiving dietary advice; 5.9% had been advised to take more exercise, and 3.8% had received advice on reducing alcohol consumption. Table 3 gives the proportions who had received advice by social class and by risk group. Over a third of the smokers and just under a third of those who were overweight said that they had received advice in the previous 12 months, but two thirds had not. More than 90% of those in the other risk groups had apparently received no advice about how they might modify their behaviour. There was no evidence of a social class bias in the proportion receiving any form of advice. It is interesting to note that some of those who were not in the risk groups reported having received advice. This may indicate they they had modified their behaviour since receiving the advice or that there is a discrepancy between the definitions used here and those used in clinical practice.

Table 3. Percentage of respondents in manual and non-manual classes and in each risk group^a who reported receiving advice on behaviour modification in the previous 12 months.

		nanual sses	Manual classes	
	Number	% received advice	Number	% received advice
Smoking				
Smokers	618	37	997	36
Non-smokers	1587	2	1426	3
Alcohol				
Heavy drinkers	286	9	409	9
Light drinkers	1986	2	2067	2
Exercise				
Sedentary	1355	8	1502	8
Non-sedentary	940	4	1016	4
Weight				
Overweight	778	32	1083	29
Acceptable weight	1507	4	1425	3
Diet	·			
Unhealthy diet	370	8	687	7
Healthy diet	1875	8	1728	11

^a Numbers of respondents differ from Table 2 because cases where all or part of the data were missing have been excluded.

Advice wanted

Overall, 44% of respondents wanted advice on how to live a healthier life. Figure 1 shows that men in the working class groups were significantly less likely to want advice ($\chi^2 = 16.6$, df = ?, P<0.01) but there was no significant trend in social class among the women.

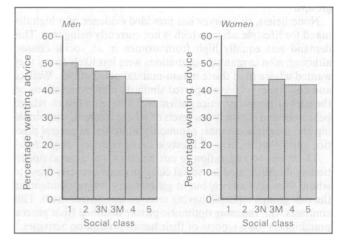


Figure 1. Percentage of men and women in each social class who wanted advice on lifestyle.

Discussion

This survey suggests that attempts to attribute differences in health-related behaviour to ignorance on the part of working class people or to their unwillingness to contemplate lifestyle changes are misplaced. For example, high proportions of all social groups rated smoking as having an important effect on health. The majority of smokers said they would like to cut down or give up and the hard core of determined smokers was nearly evenly distributed between the social class groups. Although what people say they intend to do about modifying their behaviour may be an unreliable predictor of actual change, Marsh and Matheson found that smokers who said they intended to give up did go on to make definite attempts to do so. Nevertheless, there are marked social class differences in the proportion who smoke and this may be due, at least in part, to the likelihood that those in middle class groups will succeed in giving up.

A clue to the reasons for the social class differences in healthrelated lifestyles lies in the evidence presented here and elsewhere⁵ that there are considerable social class differences in the priorities attached to factors affecting health and well being. These differences give an indication of the different 'opportunity costs' involved in avoiding unhealthy habits or in making changes to one's lifestyle. The greater emphasis that working class respondents in this survey placed on the effect of socioeconomic and environmental factors on health probably reflects social class differences in the experience of adverse social conditions. For example, people in social classes 4 and 5 are more likely to face the risk of unemployment or living and working in a polluted environment or coping with poor housing or a low income. In these conditions the struggle to keep healthy is more difficult and the decision, for example, to lose weight, take more exercise or give up smoking, may require considerably more effort.6 Middle class people who are less likely to experience adverse social conditions may be more receptive to a health education message which focuses on individual behaviour.

The common belief demonstrated here that stress and other physchosocial factors also have a very important effect on health has been reported in other surveys.⁷ Although this is still an

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area of debate among epidemiologists there is increasing evidence that the popular view may not be misplaced.⁸ It is further evidence that lay beliefs about causation in health and illness are extremely complex^{9,10} and that a simplistic approach to health promotion which ignores the socioeconomic and psychosocial influences on health and focuses only on individual lifestyle choices may not be equally well-received by all social groups.¹¹

Nonetheless, this survey has provided evidence of a high demand for lifestyle advice which is not currently being met. This demand was equally high from women in all social classes, although men in manual occupations were less likely to say they wanted advice than those in non-manual occupations. Wallace and colleagues^{12,13} have reported similarly high expectations on the part of general practice patients for advice on health-related behaviour and similarly low levels of advice received, with smoking and weight being most commonly addressed in general practice and other aspects of lifestyle being relatively neglected.

There was no suggestion in our findings that general practitioners discriminated on social class grounds between those to whom they gave advice, but in general very few respondents in the risk groups reported having received any advice at all. This contrasts with the more optimistic picture obtained from general practitioners' own reports of their health promotion activities. A survey of general practitioners' behaviour and attitudes in relation to prevention and health promotion currently underway in the Oxford region will provide an interesting counterpoint to these findings.

The evidence presented here is that the demand for advice about health is widespread and not just confined to middle class 'health freaks'. It suggests that there is considerable scope for a sensitive approach to health promotion in primary care: advice on dietary change and weight reduction which takes account of people's financial situation; advice on smoking cessation and reduction of alcohol consumption which starts from an understanding of the reasons why people smoke and drink; and advice on physical exercise which understands the various constraints on participating in leisure activities.

The strategy for providing health promotion, however, will have to be carefully thought out if it is to reach members of all social groups; opportunistic screening programmes have resulted in social class differences in uptake¹⁵ and a more systematic approach may be preferable. Yet health promotion programmes should not be confined to the individual consultation or 'health check', but part of a comprehensive public health approach, involving the community and the coordinated efforts of health authorities and central government. The data in this study indicate that there is a recognition by all social classes of the importance of making healthy choices about lifestyle. Successful programmes will need to work towards creating the conditions which make it easier for people in all social classes to make such healthy choices. Such an approach has implications for the whole spectrum of social and economic policies and cannot be left to health educators or general practitioners alone.

References

- Cox D, Blaxter M, Buckle ALJ, et al. The health and lifestyle survey. London: Health Promotion Research Trust, 1987.
- Jamieson M, Griffiths J. Health for all in the Oxford region. Oxford: Oxford Regional Health Authority, 1987.
- Office of Population Censuses and Surveys. Classification of occupations. London: HMSO, 1980.
- Marsh A, Matheson J. Smoking attitudes and behaviour. London: OPCS, 1983.
- Calnan M. Maintaining health and preventing illness: a comparison of the perceptions of women from different social classes. Health Promotion 1986; 1: 167-177.
- Graham H. Women, health and the family. Brighton: Harvester, 1984.

- Marmot MG. Does stress cause heart attacks? London: Coronary Prevention Group, 1985.
- Susser M. The epidemiology of life stress. Psychol Med 1981; 11: 1-8.
- Pill R, Stott N. Concepts of illness causation and responsibility: some preliminary data from a sample of working class mothers. Soc Sci Med 1983; 16: 43-52.
- Cornwell J. Hard-earned lives: accounts of health and illness from East London. London: Tavistock, 1984.
- 11. Farrant W, Russell J. The politics of health information.

 London: University of London Institute of Education, 1986.
- Wallace PG, Haines AP. General practitioner and health promotion: what patients think. Br Med J 1984; 289: 534-536.
- Wallace PG, Brennan PJ, Haines AP. 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. Br Med J 1987; 294: 940-942.
- Catford JC, Nutbeam D. Prevention in practice: what Wessex general practitioners are doing. Br Med J 1984; 288: 832-834.
- Coulter A, Baldwin A. Survey of population coverage in cervical cancer screening in the Oxford region. J R Coll Gen Pract 1987; 37: 441-443.

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