Barriers to physical activity and socioeconomic position: implications for health promotion

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In the United Kingdom, levels of physical activity in the general population are low[1] and there is great potential for improving public health by promoting physical activity.[2] To achieve this health professionals need to have a good understanding of the principal barriers that operate and, in a UK study of people aged 16–74 years these included lack of time or recreational facilities, poor motivation, and ill health.[1] Barriers vary by age[1 3] and social class[3] but knowledge of variation with other measures of socioeconomic position is scarce. We studied the relation between perceived barriers to physical activity, socioeconomic position, and other social characteristics in men and women aged 16–74 years.

Methods

Data for this study come from the Newcastle Health and Lifestyle Survey,[4] which was a postal survey of a 1 in 30 sample, stratified by age and sex, of 6448 adults aged 16–74 years identified from the Family Health Services Authority register. Between October 1991 and March 1992 a self completion questionnaire was used to collect data on health related behaviours, socioeconomic position, health status, and knowledge and attitudes to health issues. With respect to physical activity respondents were asked if they did enough exercise for someone of their age and those who answered "no" were asked to identify perceived barriers from a list of eight commonly reported

Table 1 Barriers to physical activity by age, sex, education, marital status, housing tenure, working status, social class, car ownership and household income

		Percentage citing each barrier				
	Number	*Lack of motivation*	*Lack of leisure time*	*Lack of money*	*Lack of transport*	*Illness/ disability*
Age group						
16-24	420	48.2	57.7	49.0	14.3	4.4
25-34	607	48.5	63.1	35.2	9.9	5.5
35-44	529	49.5	58.3	20.3	6.1	12.3
45-54	354	49.9	44.8	21.2	6.5	19.5
55-64	300	43.8	24.1	21.6	6.9	33.0
65-74	164	33.5	5.6	15.5	9.3	51.9
p value**		0.010	<0.0001	<0.0001	0.0008	<0.0001
Sex*						
Men	1070	46.3	47.0	26.8	7.4	14.6
Women	1305	47.9	49.9	28.5	9.6	10.0
p value		0.41	0.19	0.38	0.061	0.001
Education*						
Elementary	1446	45.3	46.7	30.1	8.3	12.9
Further education/university	750	53.7	55.3	20.8	8.1	9.6
p value		0.0003	0.0003	<0.0001	0.86	0.029
Marital status*						
Married or living with a partner	1472	48.3	55.5	23.8	6.9	10.4
Single, widowed or divorced	892	48.2	35.9	34.9	11.6	15.6
p value		0.44	<0.0001	<0.0001	0.0002	0.0004
Tenure*						
Owner occupier	1455	50.2	58.1	18.7	6.8	8.3
Council tenant	894	42.2	33.0	43.1	11.4	18.7
p value		0.0002	<0.0001	<0.0001	0.0001	<0.0001
Employment status † *						
Employed	1426	51.6	64.2	18.5	5.8	4.9
Unemployed	169	51.8	12.3	57.4	11.8	10.0
p value		0.95	<0.0001	<0.0001	0.0018	0.011
Social class (household) *						
Non-manual	1047	53.6	55.9	19.3	6.9	9.1
Manual	1099	43.7	45.6	33.8	9.4	12.8
p value		<0.0001	<0.0001	<0.0001	0.031	0.005
Car ownership*						
Yes	1554	50.3	56.6	19.4	4.7	8.2
No	770	42.1	33.4	43.6	16.0	20.4
p value		0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Annual household income (£)*						
< 5000	494	37.9	22.4	57.0	17.4	24.6
5-10000	573	46.8	41.3	35.1	11.7	13.6
10-15000	433	50.3	61.2	19.7	6.2	7.3
>15000	718	53.2	64.6	10.0	2.3	5.8
p value**		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

* Predicted at age 40 (logistic regression).
** Mantel-Haenszel test for trend.
† For those economically active.

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ones.[1] Measures of socioeconomic position included housing tenure, education, car ownership, and household take home pay (income) in one of 12 categories that, subsequently, was classified into one of four quartile categories (<£5000, £5000–9999, £10 000–14 999, ≥£15 000 per annum). Linear trends were assessed using the Mantel-Haenszel test and comparisons of proportions were made using logistic regression with adjustment for age, which was included as a covariate (SPSSx).

Results

After adjusting for exclusions and unforeseen losses in the sample, replies were received from 4140 persons (1927 men and 2213 women), a response rate of 69%. Forty three per cent of men and 39% of women considered they did enough exercise for someone of their age. Among 1070 men and 1305 women who did not feel they did enough exercise principal barriers to exercise were lack of leisure time (47% of men and 51% of women) and lack of motivation (46% of men and 48% of women). However, barriers varied by age, social class, marital status, and measures of socioeconomic position (table 1). For example, lack of motivation and lack of time were related positively to income while illness or disability, lack of money, and lack of transport were related negatively to income.

Discussion

The relation between health and socioeconomic position is complex and, as yet, not fully understood. Levels of leisure time physical activity are patterned socioeconomically[1 4] and our data suggest possible reasons. Principal barriers to increased activity vary by age group[1] and social class based on occupation[3] and these trends were confirmed in this study. However, our data suggest they are also influenced by other measures of socioeconomic position. For example, lack of money and lack of access to transport are more likely to be cited by the less affluent. These findings have relevance for health promotion programmes targeted at indivduals as research suggests that people who cite only "external" barriers such as lack of money and access to transport are more likely to change exercise behaviour than people who cite "internal" barriers such as lack of motivation and time.[5] Thus, interventions to promote physical activity in poorer populations may require different strategies from those targeted at more affluent groups. These may entail the use of incentives or subsidies, or alternative motivational strategies that increase access to marginal resources. These findings have important implications for the development of exercise prescription or referral schemes and physical activity policies at organisational and community levels.

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Conflicts of interest: none

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