MOTIVES UNDERLYING HEALTHY EATING: USING THE FOOD CHOICE QUESTIONNAIRE TO EXPLAIN VARIATION IN DIETARY INTAKE

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Summary. The Food Choice Questionnaire (FCQ), which measures the reported importance to a given individual of nine factors underlying food choice, and a food frequency questionnaire, were administered to 241 participants, who were also required to classify their diet as either 'standard', 'low in red meat' or 'vegetarian'. Respondents describing their diet as low in red meat attributed greater importance to health, natural content, weight control and ethical concern in their food choice than did those who described their diets as standard, whereas vegetarians differed significantly from those with a standard diet only on the score for ethical concern. Differences between men and women and between students and non-students in the frequency of consumption of a number of foods were shown to be mediated by differences in the importance attached to FCQ factors. Thus the generally healthier diets of women compared to men appeared to be accounted for by the greater importance attributed by women to weight control, natural content and ethical concerns.

Introduction

Dietary choice can have profound consequences for health (WHO, 1990) and it is therefore important that the causes of variation in dietary intake should be understood. One way of approaching this problem is to ask individuals what factors guide them in their food choices. Several investigators have used this method to examine the way in which concerns about health affect dietary intake (e.g. Smith & Owen, 1992; Wardle, 1993). However, a number of other factors are likely to be taken into consideration by individuals making decisions about what they eat. For instance, price and convenience may play an important role (Krondl & Lau, 1982; Rappoport *et al.*, 1992) and one study suggested that concern with appearance may be of greater importance in determining the eating habits of the population of the United States than is concern

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about health (Hayes & Ross, 1987). Building on approaches used to investigate motives for other health-related behaviours (e.g. West & Russell, 1985; Cooper *et al.*, 1992), the Food Choice Questionnaire (FCQ) has been designed to assess the importance to individuals of a range of factors related to dietary choice (Steptoe, Pollard & Wardle, 1995). The FCQ consists of nine scales, measuring the importance of health concern, convenience of preparation and purchase, price and concern about value for money, sensory appeal in terms of taste, smell and texture, natural content and the absence of additives and artificial ingredients, mood or use of food to improve mood and cope with stress, familiarity of food, ethical concern about country of origin and packaging, and weight control. These scales have been shown to be reliable, internally consistent and stable over time (Steptoe *et al.*, 1995). In this paper the FCQ is used to show how these nine factors are related to intake of foods commonly characterised as healthy or unhealthy, and argue that they may help to account for variations in dietary choice associated with demographic factors, particularly gender.

The first aim was to show that FCQ scores are related to dietary intake, as assessed by self-reported diet type (i.e. 'standard', 'low in red meat' or 'vegetarian') and a food frequency questionnaire, and to indicate in what ways dietary intake varies according to the importance attached to the various factors that play a role in food choice. It was expected that vegetarians and those with diets low in red meat would have higher scores on the scales measuring ethical concern and the importance of health in food choice. It was also predicted that those who ate fewer high-fat, high-sugar, low-fibre foods would be more likely to rate health and weight control as important in their food choice. In addition, these people were expected to rate natural content as an important factor in food choice. In contrast, it seemed likely that individuals constrained by price in their food choice would tend to eat less healthily, since a healthy diet has been shown to be relatively expensive in London, where the study took place (Mooney, 1990). No general predictions with respect to the remaining FCQ factors were made, although some specific associations with particular foods, such as the rated importance of convenience with consumption of chips, were expected.

A further aim was to test whether differences in dietary intake between sectors of the population (e.g. men and women) can be explained by the differences between these groups in the factors they take into account when making decisions about what to eat, as assessed by the FCQ. Gender differences and differences between the student and non-student sectors of the sample were investigated. It is well established that there are gender differences in diet (Braddon *et al.*, 1988; Rolls, Fedoroff & Guthrie, 1991) and United States data suggest that university students tend to eat unhealthy diets (Huang *et al.*, 1994). The factors taken into consideration in food choice may also differ according to gender and student status (Rappoport *et al.*, 1993). Attitudes to food choice are expected to act as mediators between demographic factors and food consumption and it was therefore predicted that the differences in the importance attached to factors in the FCQ should help to explain demographic differences in food consumption. Such findings would aid understanding of the reasons for different eating habits and should assist those aiming to encourage healthier eating in high risk sectors of the population.

The study included consumption of types of food that are known to affect an individual's risk of developing cardiovascular disease and other degenerative diseases such as cancer and diabetes mellitus. Foods that are high in energy, high in fat

(especially saturated fat) or low in fibre have been identified as unhealthy in the medical literature (Dimmitt, 1995; Preuss, Gondal & Lieberman, 1996) and in government reports (Committee on Medical Aspects of Food Policy, 1994) and are perceived to be unhealthy by the general population of Britain and other Western nations (Love & Thurman, 1991). Unhealthy foods high in energy and/or fat and healthy foods low in energy and/or high in fibre were therefore investigated.

Methods

Design

The FCQ was posted to a heterogeneous population, including people from the general population of London and students attending university in London, as part of the validation of the instrument. This first questionnaire was followed 2 weeks later by a second, which again incorporated the FCQ, together with a short food frequency questionnaire. The first administration of the FCQ was used in the following analyses so that measures of motives and behaviour were collected on two separate occasions, minimising the possibility that answers given on one would influence those given on the other. A series of foods particularly relevant for health were selected for detailed analysis, including brown bread, cake, chips, fresh fruit and red meat. Subjects were asked to describe their diet as 'standard', 'low in red meat', 'vegetarian' or 'other'.

Subjects

The FCQ was sent to 400 students from a variety of disciplines at a number of colleges in London and to 641 people selected at random from the electoral register of a London borough. Replies were received from 135 (34·0%) students and 223 (34·8%) residents, giving an initial sample of 358. A total of 241 (67·3% of the initial sample) subjects returned the second questionnaire within a 48-day period and provided complete data for the analyses conducted here. The average number of days between completion of the questionnaires was $19·6 \pm 5·21$. The sample is described in Table 1.

Food Choice Questionnaire

The FCQ consists of 36 items designed to assess the reported importance of nine factors that may influence food choice (Steptoe *et al.*, 1995). These are health, convenience, price, sensory appeal, natural content, mood, familiarity, ethical concern and weight control. Subjects are asked to endorse the statement: 'It is important to me that the food I eat on a typical day . . .' for each item, choosing between four responses: not at all important (scoring 1), a little important (2), moderately important (3), very important (4). Scores on items contributing to each scale were averaged so that scale scores were between 1 and 4. Examples of items are 'is low in calories' (weight control), 'is cheap' (price), 'is packaged in an environmentally friendly way' (ethical concern) and 'cheers me up' (mood).

Food frequency questionnaire

A short, semi-quantitative food frequency questionnaire was used to assess intake of a number of foods. Subjects were asked how frequently they ate a 'medium serving'

Table 1. Characteristics of sample
(total $N = 241$)

Characteristic	
Age:	$30\cdot7 \pm 14\cdot8$
Sex:	
Women	125
Men	116
Occupation:	
Student	103
Employed	107
Unemployed	8
Household manager	6
Retired	17
Diet:	
Standard	152
Low in red meat	65
Vegetarian	18
Other	6

of these foods over the previous month. Where appropriate, the size of a medium serving was specified, e.g. one piece of fruit, one slice of bread, but in general assessments of a medium serving were subjective. However, several investigators have suggested that determination of frequency of consumption alone can be sufficient for establishing relative intake (Horwath, 1990), so although this subjectivity concerning portion size limits the accuracy of the dietary information it should not compromise the analyses performed here. The average number of medium servings consumed per day was calculated by converting the reported frequencies according to the following formula (Salvini *et al.*, 1989); never or less than once a month $= 0$; 1–3 per month $= 0\cdot07$; once a week $= 0\cdot14$; 2–4 per week $= 0\cdot43$; 5–6 per week $= 0\cdot80$; once a day $= 1$; 2–3 per day $= 2\cdot5$; 4+ per day $= 4\cdot5$. Clearly such a questionnaire can provide only a crude estimate of food intake. However, food frequency questionnaires have generally been shown to be reliable and valid for ranking the intakes of individuals (Horwath, 1990) and since our interest was in examining group differences and associations between consumption frequency and the food choice factors, the method was considered appropriate.

For detailed analysis five foods were selected that are particularly relevant to health, representing health conscious and less healthy food choices, namely brown bread, fresh fruit, cake, chips and red meat (defined as 'beef, pork or lamb; roast, stew, mince, beefburgers'). In addition, a 'healthy foods' score was constructed as the sum of the frequencies of consumption of fresh fruit, peas, tomatoes, other vegetables, brown bread, low fat spread and white fish (not fried). An 'unhealthy foods' score was constructed as the sum of the frequencies of consumption of butter, biscuits, cake, sausages, pies, chips and sweets. These indices were considered useful as more general measures of healthy eating. A tendency for respondents to food frequency

questionnaires to under-report consumption of foods perceived as unhealthy (e.g. butter, processed meat) and to over-report consumption of foods perceived as healthy (e.g. fruit and vegetables) has been reported (Worsley, Baghurst & Leitch, 1984; Salvini *et al.*, 1989). These biases affect the utility of food frequency questionnaires in the assessment of total dietary intake for individuals. However, they will only be important for the analyses reported here if different individuals show different biases, a possibility which is always present with data collected by self-report and which is very difficult to assess.

Statistics

The distributions of the food frequency scores and of the healthy and unhealthy foods scores showed a positive skew, except in the case of red meat, which showed an approximately normal distribution. Following Salvini *et al.* (1989), a log transformation was applied to the skewed data. The resulting distributions approximated normality. Associations between demographic factors, food choice factors and diet were assessed using Pearson correlations, multivariate analysis of variance and multiple regression. Specifically, multiple regression was used to test whether there were differences between men and women and between students and non-students in consumption of each food. To test whether differences between these groups could be accounted for by the answers given by them to the FCQ it was necessary first to use t-tests to show if there were differences between the groups in responses to the FCQ. Next it had to be shown that once added to the multiple regression already including gender and student/non-student status, one or more FCQ factors that were rated significantly differently by the groups took up variance previously accounted for by a demographic variable (Baron & Kenny, 1986).

Results

Price, health, convenience and sensory appeal were endorsed as the strongest determinants of food choice (Table 2). Correlations between factors were small to moderate, with the associations between health, natural content and ethical concern, and between health, natural content and weight control, being the largest.

To test whether those endorsing different types of diet really did eat different quantities of meat two one-way analysis of variance models were run to test for group differences in consumption of red meat and poultry. Both tests were highly significant ($p < 0.001$). Results of post-hoc Tukey's honestly significant difference tests showed that those reporting diets low in red meat and vegetarians did not differ in the amount of red meat consumed, but both ate significantly less red meat than those who reported that their diets were standard ($p < 0.05$). Both those reporting a standard diet and those with diets low in red meat ate significantly more poultry than vegetarians ($p < 0.05$), but did not differ from each other.

Multivariate analysis of variance was used to test whether scores on the FCQ factors varied according to type of diet, omitting those whose diet was categorised as 'other'. The result was highly significant, $F(9,232) = 2.79$, $p < 0.001$. Significant univariate effects were seen for the scales measuring natural content, health, ethical

Table 2. Mean scores, with standard deviations, for each FCQ factor and Pearson correlations between factors

	Mean	Convenience	Ethical concern	Familiarity	Health	Mood	Natural content	Price	Sensory
Convenience	2·75 ± ·80								
Ethical concern	1·86 ± ·78	0·11							
Familiarity	1·76 ± ·68	0·30	−0·01						
Health	2·82 ± ·72	0·24	0·41	0·08					
Mood	2·10 ± ·73	0·29	0·29	0·34	0·32				
Natural content	2·45 ± ·86	0·07	0·58	−0·03	0·61	0·26			
Price	2·83 ± ·80	0·42	0·20	0·11	0·20	0·16	0·14		
Sensory	2·99 ± ·63	0·15	0·24	0·19	0·14	0·44	0·12	0·04	
Weight control	2·38 ± ·87	0·11	0·21	0·06	0·51	0·20	0·47	0·14	0·06

Correlations above 0·16 are significant at the 1% level.
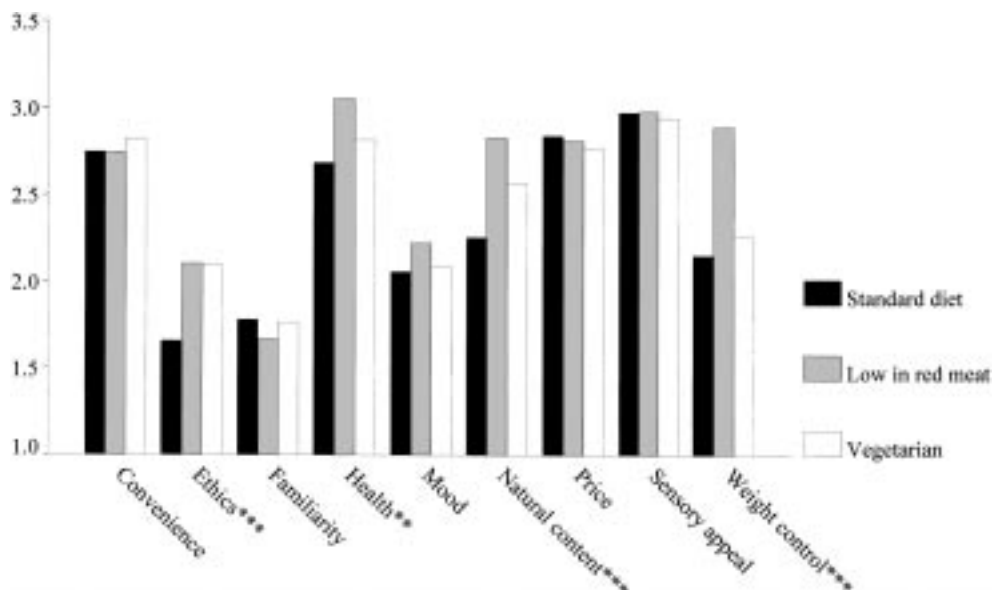
Fig. 1. Mean scores on each FCQ scale according to type of diet. $**p < = 0.01$; $***p < = 0.001$.

concern and weight control (Fig. 1). In each case the lowest score was seen in those who described their diet as standard rather than vegetarian or low in red meat. Post-hoc tests showed that those describing their diet as low in red meat had significantly higher scores than those describing their diet as standard on all these factors, and also scored significantly higher than vegetarians on the weight control scale (Tukey's honestly significant difference, $p < 0.05$). Vegetarians differed significantly from those with a standard diet only on the score for ethical concern.

Correlations between the FCQ factors and food consumption data are shown in Table 3. Since a large number of correlations were calculated, only those significant at the 1% level were accepted as important. The importance attached to health showed a significant association with all foods except cake. Those who attached greater importance to health ate more brown bread and fresh fruit and fewer chips and less red meat. They also scored higher on the healthy foods index and lower on the unhealthy foods index. The importance attached to natural content (i.e. additive-free foods, containing only 'natural' ingredients) showed a similar pattern of associations. Those for whom ethical concerns were important also showed this generally healthier pattern of eating, as did those concerned about weight control. The other FCQ factors did not show consistent associations with food consumption.

Multiple regression was used to evaluate consumption of the different foods in relation to gender and student status (Table 4). There were gender differences in the frequency of consumption of all foods except brown bread. Women ate less cake, fewer chips, and less red meat and more fresh fruit than did men, and scored lower on the unhealthy foods index. Students ate a significantly different amount of all foods, except for red meat and fresh fruit, than non-students. Students ate less brown bread and

Table 3. Pearson correlations between frequency of consumption of foods and FCQ factors

	Brown bread	Cake	Chips	Fresh fruit	Red meat	Healthy foods	Unhealthy foods
Convenience	−0·04	0·13	0·08	−0·04	−0·01	−0·11	0·10
Ethics	0·19**	−0·15	−0·23***	0·14	−0·23***	0·18	−0·20**
Familiarity	0·02	0·13	0·01	−0·11	0·07	−0·08	0·05
Health	0·23***	−0·14	−0·37***	0·34***	−0·26***	0·34***	−0·23***
Mood	0·14	0·02	−0·14	0·03	−0·08	0·06	−0·03
Natural content	0·25***	−0·28***	−0·42***	0·38***	−0·27***	0·40***	−0·27***
Price	−0·04	0·17**	0·02	0·03	−0·05	−0·08	0·13
Sensory appeal	0·01	−0·11	−0·05	0·01	0·04	−0·02	0·05
Weight control	0·11	−0·17**	−0·42***	0·40***	−0·33***	0·33***	−0·41***

$**p < = 0.01$; $***p < = 0.001$.

Table 4. Results of multiple regressions of gender, age and income on food consumption: B values with significance levels

	Brown bread	Cake	Chips	Fresh fruit	Red meat	Healthy foods	Unhealthy foods
Gender	−0·024	0·046*	0·057***	−0·199***	0·139***	−0·084	0·127*
Student status	−0·221***	0·064**	0·095***	−0·002	−0·019	−0·187**	0·132*
Model	**	**	***	**	***	**	ns
r²	0·05	0·05	0·15	0·06	0·06	0·05	0·03

$*p<=0.05$; $**p<=0.01$; $***p<=0.001$. For sex: 1=women, 2=men; For student status: 1=non-student, 2=student.

Table 5. Results of t-tests for differences between men and women and between students and non-students in responses to the FCQ

	Women (N=125)	Men (N=116)	p	Non-Students (N=138)	Students (N=103)	p
Convenience	2·85 ± ·76	2·66 ± ·83	0·07	2·78 ± ·83	2·73 ± ·76	0·67
Ethical concern	2·00 ± ·74	1·71 ± ·81	0·004	2·01 ± ·82	1·66 ± ·71	0·001
Familiarity	1·76 ± ·68	1·74 ± ·68	0·76	1·78 ± ·73	1·72 ± ·60	0·47
Health	3·00 ± ·61	2·67 ± ·77	<0·001	2·98 ± ·68	2·65 ± ·72	<0·001
Mood	2·16 ± ·71	2·06 ± ·75	0·28	2·22 ± ·76	1·97 ± ·68	0·01
Natural content	2·70 ± ·81	2·23 ± ·85	<0·001	2·67 ± ·83	2·22 ± ·82	<0·001
Price	2·98 ± ·72	2·71 ± ·84	0·01	2·70 ± ·78	3·04 ± ·76	0·001
Sensory appeal	3·10 ± ·56	2·90 ± ·69	0·01	3·12 ± ·61	2·83 ± ·63	<0·001
Weight control	2·67 ± ·77	2·07 ± ·86	<0·001	2·51 ± ·82	2·23 ± ·90	0·01

scored lower on the healthy foods index and ate more cake and chips and scored higher on the unhealthy foods index.

The results of t-tests performed to test for sex and student/non-student differences in responses to the FCQ showed a large number of significant differences (Table 5). Women assigned significantly more importance than men to weight control, health, natural content (all $p<0.001$), ethical concern, price and sensory appeal (all $p<0.01$) than men. Students assigned more importance to price ($p=0.001$) than non-students, and less importance to ethical concern, health, natural content and sensory appeal (all $p\leqslant0.001$), as well as mood and weight control (both $p<0.01$).

The second part of the test for mediation was performed by adding the FCQ factors to the multiple regressions using a stepwise procedure (Table 6); only those factors explaining a significant amount of variance in the dependent variable are added to the model (Norusis, 1992). Since the FCQ factors were added to the model one by one, it is possible to find which of the factors mediated the demographic effect.

Table 6. Results of stepwise multiple regressions of demographic factors (gender, student status) and FCQ factors on food consumption: B values with significance levels

	Brown bread	Cake	Chips	Fresh fruit	Red meat	Healthy foods	Unhealthy foods
Gender	0·036	0·030	0·015	−0·052	0·069	0·038	−0·010
Student status	−0·166**	0·024	0·071***	0·060	0·005	−0·038	0·068
Convenience			0·021*				0·106**
Ethics					−0·060*		−0·100*
Familiarity							
Health						0·110*	
Natural content	0·127***	−0·058***	−0·040***	0·122***		0·133**	
Price		0·048**				−0·082*	
Weight control			−0·041***	0·131***	−0·073***	0·089*	−0·210***
Model	***	***	***	***	***	***	***
r²	0·10	0·14	0·31	0·24	0·15	0·24	0·22

$*p < = 0.05; **p < = 0.01; ***p < = 0.001.$

The total variance accounted for by the models increased substantially for all the foods when the food choice factors were included, indicating that their inclusion allowed more variance in food consumption to be explained than was possible simply on the basis of the demographic data. When the FCQ factors were included, the gender differences in fresh fruit, red meat, chips and cake consumption and in the unhealthy food score were no longer significant. In the case of fresh fruit the gender effect became non-significant after only weight control was added to the model. In the case of red meat, both weight control and ethical concern were added to the model before the gender effect became non-significant. The gender difference in consumption of cake and chips was apparently explained after only natural content was added to the model. Since weight control, natural content and ethical concern were significantly more important to women, it appears that the effects of gender on the consumption of these foods were mediated by these factors. Similarly, gender was a significant predictor of the unhealthy foods score at stage one but became non-significant once weight control was added to the model, suggesting that gender differences in the importance attributed to weight control explained the higher unhealthy eating score of men.

When the FCQ factors were included, the student/non-student difference in consumption of cake disappeared, as did the difference in scores on both the healthy and unhealthy food indices. The effect of student/non-student status on cake consumption disappeared when natural content was added to the model. The addition of natural content was also responsible for the disappearance of a significant effect of student status from the model explaining the healthy foods score. Similarly, the addition of weight control to the model removed the significant effect of student status from the model explaining the unhealthy food score. The lesser importance attached to natural content and weight control by students seemed, therefore, to account for their greater consumption of the unhealthy foods and lower consumption of the healthy foods investigated here.

Discussion

The results suggest that most of the factors in food choice measured by the FCQ are significantly associated with food intake. The importance that people attach to different factors relating to food choice decisions is of interest in its own right. The fact that the importance attached to these factors appears to have an impact on food intake provides further validation for the FCQ. The FCQ scores varied according to type of diet. Those who reported their diets were low in red meat had significantly higher scores than those with a standard diet on the factors measuring the importance of ethical concerns and health, suggesting that, as hypothesised, these are important factors in determining choices about red meat consumption (Breidenstein, 1988). Concerns about natural content and weight control were also associated with a diet low in red meat. Vegetarians had significantly higher scores than those with a standard diet only on the scale measuring ethical concern, suggesting that the decision to be vegetarian tends to be primarily based on ethical rather than health-related concerns (Parraga, 1990; Beardsworth & Keil, 1992). These findings indicate that the FCQ factors health, natural content, weight control and ethical concern show expected relationships with type of diet.

The expectation that people who stated that health was important to them in their food choice would eat more healthily was fulfilled. Similar findings have been reported

previously (e.g. Krondl & Lau, 1982; Hollis *et al.*, 1986; Tuorila & Pangborn, 1988; Smith & Owen, 1992). In addition, the predictions that those for whom natural content and weight control were important would also make healthier food choices were confirmed. Those for whom ethical concern was an important factor showed the same pattern of consumption. This result was not predicted, except in the case of red meat. There were positive correlations between these four FCQ factors (health, natural content, weight control, ethical concern), but not of sufficient magnitude to suggest that the factors are actually measuring the same underlying construct. These results therefore corroborate and extend the findings of Hayes & Ross (1987) that concern with health is not the only reason people have for maintaining a relatively healthy diet. Hayes & Ross showed that concern with appearance is an important factor in the US; the present data show that concerns that food should be 'natural' and that it should be ethically produced play a similar role in the British population. Convenience did not show any significant associations with dietary intake in these univariate analyses. However, in the multivariate model, the expected association between the rating of the importance of convenience and consumption of chips was seen, as was an association between convenience and consumption of unhealthy foods more generally (Table 6).

The fact that the correlations between sensory appeal and consumption of these foods were not high does not indicate that sensory appeal is unimportant in food choice. On the contrary it was rated as the most important factor in this sample (Table 1) and liking or tasting for a particular food has been shown to be a strong predictor of its consumption (Michela & Contento, 1986; Tuorila & Pangborn, 1988; Parraga, 1990; Tuorila, Pangborn & Schulz, 1990). However, since taste is such an individual matter, there is no strong consensus about which foods have greater sensory appeal so the importance of sensory appeal in general would not be expected to predict consumption of any particular food. The same explanation accounts for a previous finding of strong correlations between taste ratings of individual foods and frequency of consumption but no associations between general importance of taste and consumption of certain types of food (Wardle, 1993).

As expected, there were differences between genders and between students and non-students in consumption of many of the foods. The most significant factor was gender. These results accord with those of previous studies, which have shown that women eat more fruit and less meat than men (Bingham, McNeil & Cummings, 1981; Cronin *et al.*, 1982; Rolls *et al.*, 1991) and that men eat high-fat foods more frequently than women (Shepherd & Stockley, 1987). There was strong evidence that these gender differences were due to the greater emphasis placed by women on weight control, natural content and ethical concerns. Since the largest gender difference in scores on the FCQ scales was seen for weight control (Steptoe *et al.*, 1995), it seems likely that this factor played the most important role in ensuring that women ate a healthier diet than men. However, women's concern with weight also has drawbacks, as indicated by the much higher rate of eating disorders in women (Rolls *et al.*, 1991).

The reported diet of students was less healthy than that of non-students, as has been found in the United States (Huang *et al.*, 1994). Tests for mediation indicated that this pattern could largely be explained by the relative lack of importance attributed to natural content and weight control by students. Price was a much more important concern for students than for non-students, and also played a role in determining consumption of some foods.

Health appeared to play little role as a mediator and only entered the model explaining the composite healthy food score. A partial explanation for this may be that scores on the health scale varied less than scores on some other scales, notably natural content. However, another explanation is that the commonly held conception of healthy eating in the general population, as reflected in the FCQ scale, is not the same as that indexed by the foods chosen for analysis. For example, items in the health factor refer to a need for foods high in protein but do not mention fat content, which is the main component of the weight control factor. Concerns about excess calories and fat content appear to be more strongly associated with ideas about weight control and dieting than with concepts of healthy eating. Health educators need to consider whether consumption of low-fat foods is generally considered to be more important for weight control than for health in the UK, and the implications of this understanding for promotion of healthy eating.

In summary, the results of the study indicate that people for whom natural content, ethics, weight control and health were more important ate more of those foods that are regarded as healthy, and less of those foods that are regarded as unhealthy. Concern about weight has previously been shown to have a highly significant impact on eating behaviour (Hayes & Ross, 1987; Tuorila & Pangborn, 1988; Tuorila *et al.*, 1990), but the roles of concern about additive content and ethics have not received as much attention. The other factors measured in the FCQ also appear to play some role in determining dietary intake although their effects do not appear to be as systematically related to healthier patterns, with the exception that those people for whom price was an important factor in making food choices tended to eat less healthily.

Since only a limited number of foods were investigated here and because of the inevitable shortcomings of data obtained by food frequency questionnaire and problems of correlating self-report data, these findings should be considered preliminary. Given the only moderate response rate, the results are unlikely to be representative of the British population and extremely unlikely to be generalisable internationally, since it has been shown that reasons for healthy eating patterns can vary significantly between Western societies (Cockerham, Kunz & Lueschen, 1988). However, the study has successfully shown how the Food Choice Questionnaire may be used to gain insight into people's reasons for eating the way they do and that further work conducted along these lines will be useful.

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