Coronary heart disease

Contrasting the health beliefs and behaviours of South Asian communities

S. Beishon and J.Y. Nazroo

Policy Studies Institute

In order to do this we interviewed respondents from each of the main South Asian groups, ensuring that we included both those born and those not born in the UK, members of different religions and both men and women. We also interviewed a comparison sample of white respondents, so that differences from the majority population could be identified. The respondents we interviewed were selected from the sample used for the *Fourth National Survey of Ethnic Minorities* (Modood, *et al.* 1997) carried out by the Policy Studies Institute and Social and Community Planning Research. This was a major nationally representative study of the main ethnic groups in the UK, and allowed us to identify the types of respondents we wanted to interview across a variety of dimensions. The details of the sampling and interviewing processes used will be given later in this chapter. First, we will discuss the importance of health beliefs and behaviours to preventive health care.

UNDERSTANDING HEALTH BELIEFS AND BEHAVIOURS

The way in which we view, experience and interact with the world will be defined by our culture. Like other beliefs and codes of behaviour, those concerning health are a part of culture and, consequently, have the potential to vary across the diverse cultures that comprise the population of the UK.

In fact, health beliefs have been shown to vary by both socioeconomic group (Backett, 1992; Calnan and Williams, 1991; Blaxter and Patterson, 1982) and ethnic group (McAllister and Farquhar, 1992). Health beliefs can be seen as a way of understanding our bodies and making sense of what is going on within them. A number of authors have noted the importance of lay health beliefs, both in the extent to which health education messages are assimilated and how far lay ideas differ from professional ones (Bury, 1994; Blaxter, 1990; Pill and Stott, 1985; Blaxter, 1983; Pill and Stott, 1982; Herlich, 1973). Indeed it has been suggested that the volume of health education messages transmitted to the general public is creating a problem because people may become confused by conflicting advice or so anxious over the amount of it, that they are unable to act at all (Bury, 1994).

Although this implies that health beliefs are not automatically transformed into compatible health behaviours, their role in influencing behaviour is seen as important, as the ways in which we understand health, illness and treatment will undoubtedly affect the ways in which we act on health education messages and interact with health services – for example, influencing compliance with medical treatment. In addition, the ways in which ill health is defined will not only influence help-seeking behaviour, but also from whom that help is sought. Health behaviour is defined as any activity undertaken, or not undertaken, by a person for the purpose of preventing disease or detecting it at a symptomatic stage (Kasl and Cobb, 1966). They have been widely studied and, like health beliefs, they have been shown to vary by level of education, socioeconomic group, age, gender and ethnic group (Smith and Smith, 1994; Smith *et al.*, 1993; Smith, Catford and Moore, 1992; Smith and Baghurst, 1992; Winkleby, Fortman and Rockeby, 1992; Hulshof *et al.*, 1991; Blaxter, 1990; Gregory, Foster and Tyler, 1990).

A number of models have been developed to analyse attitudes, beliefs and behaviours relating to health. All of these models attempt to predict the likelihood of change in any

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1. Introduction

This study was commissioned by the Health Education Authority to explore the health education needs of South Asian communities living in the UK in relation to coronary heart disease.

Post-war migration has led to the development of significant communities of ethnic minorities from the Indian sub-continent who are commonly described as South Asian. These groups have diverse and distinctive cultures and have a pattern of mortality and morbidity that is different from that of the white communities they live among (Marmot, Adelstein and Bulusu, 1984; Balarajan and Bulusu, 1990). In addition to lifestyle factors associated with cultural practices – such as diet – racial disadvantage, leading to high levels of unemployment, poor housing and low educational achievement (Daniel, 1968; Smith, 1977; Brown, 1984) may have also contributed to differential rates of ill health (Nazroo, 1997).

Heart disease is the biggest cause of death in the UK and a major cause of ill health. Indeed, it is one of the 'key' areas targeted for reduction in the Department of Health's Health of the Nation document (1991). It has been well established that there are variations in rates of heart disease mortality by ethnicity. For example, mortality data covering the period from 1979 to 1983 showed that men born in the Indian sub-continent had a 36 per cent higher mortality rate from heart disease than the national average, while women born in the Indian sub-continent had a 46 per cent higher mortality rate (Balarajan, 1991). This pattern also showed some variation by age, with those born in the Indian sub-continent and aged between 20 and 40 having a particularly great risk, having twice the heart disease mortality rate of the equivalent white population. These figures are of particular concern when the relatively young age profile of the South Asian populations in the UK is considered. This suggests that unless this relative burden of ill health is addressed, it will have a dramatic effect on both South Asian communities and health-care providers in the next century (Lowy, Woods and Botha, 1991). In fact, those born in South Asia are the only ethnic group to have shown a consistent rise in mortality from heart disease in the period between 1970–72 and 1979–83, with all the other ethnic groups showing a fall in heart disease mortality, except those born in the African commonwealth who showed a mixed pattern (Balarajan, 1991).

The aetiology of heart disease is clearly complex. Both biological and social factors may be important. For example, McKeigue *et al.* (1991) suggest that South Asians may face an additional risk of heart disease compared to other ethnic groups because of the relatively high prevalence of a particular metabolic disorder, insulin resistance syndrome, among them, which is apparently genetically determined. In addition, the socio-economic profiles of ethnic minority groups suggest that structural factors, such as poverty and racism, which are related to poor health (Townsend and Davidson, 1982) are also likely to affect some

South Asian groups disproportionately and may have some bearing on their greater risk of heart disease (Nazroo, 1997). Nevertheless, several lifestyle factors (such as smoking, diet and lack of exercise), have been implicated in the aetiology of heart disease, so health education aimed at altering such behaviours is an important way of reducing the prevalence of heart disease. However, health education programmes targeted at particular ethnic groups not only need to be accessible in terms of language and availability, they also need to be sensitive to the cultural values, health beliefs and behaviours of the targeted groups (Thompson and MacDonald, 1989). Unfortunately, there is little information to date on which to base improvements in the delivery of health education to South Asians, nor is there adequate information on how effective existing health education has been in improving the health knowledge of South Asians and in altering their behaviour in relation to the risk of heart disease. This report aims to fill some of these gaps in knowledge.

When considering potential cultural variations in health beliefs and behaviours it is important to recognise that South Asians in Britain do not share a single, homogeneous culture or identity. Asian is not a meaningful identity, nor is it widely recognised by those to whom it is attributed. Modood, Beishon and Virdee, (1994) suggest that South Asians are more likely to identify with a more specific ethnic or religious identity. A pan-Asian identity is rare because of the many differences between Asian groups. Indeed, Asian is often interpreted as a derogatory term, by those at which it is aimed, because it is a category into which all those with a similar appearance are lumped together, usually by non-Asians.

As with other groups we would expect the health beliefs of South Asians to differ and to be dependent upon country/region of family origin, class, gender and generation. In terms of the country of family origin, South Asians include those from India, East Africa, Pakistan and Bangladesh. There are differences both in the pattern of migration and in the socio-economic positions of these different South Asian groups. Indians were the first to come to the UK, followed by Pakistanis and more recently Bangladeshis. Most of the African Asian migration was the result of expulsions from Uganda which occurred in the late 1960s and early 1970s. In addition, many South Asians in the UK have also been born here or spent a large part of their life here, with a consequent degree of acculturation. In terms of socio-economic position, according to data from the 1988 to 1990 labour force survey (Jones, 1993) Indians and African Asians were far more likely to be in non-manual occupations than Pakistanis and Bangladeshis, and were far less likely to be unemployed.

Within each of these groups there is still more diversity. Some of this is based on regional differences, for example Indians include those who originated from Punjab and those who originated from Gujarat. There is also religious diversity among these groups, with Pakistanis and Bangladeshis being predominantly Muslim, but Indians and African Asians including Muslims, Hindus, Sikhs and some Christians.

Given this background, this study had the following objectives:

- To explore how health beliefs concerning heart disease varied by ethnicity.
- To explore both how knowledge of health education material relating to heart disease and the sources of such knowledge varied by ethnicity.
- To explore the modification or failure of modification of health behaviours in the light of health beliefs concerning heart disease, and how this varied by ethnicity.

given health behaviour. These include the health belief model (Becker, 1974), self-efficacy theory (Bandura, 1977), the health action model (Tones, Tilford and Robinson, 1990) and the health locus of control model (Wallston, Wallston and DeVillis, 1978).

Health belief model – The key to the health belief model (HBM) is the importance of the consequence or outcome of a change in health-related behaviour to the individual and the expectation that a given behaviour will achieve that consequence. The HBM is based on four constructs that are expected to determine health behaviour:

1. Perceived susceptibility, that is the extent to which individuals believe they are likely to suffer from a particular ailment, discomfort or disease.
2. Perceived severity, that is how serious it might be for them, both medically and socially.
3. Perceived benefits of engaging or not engaging in a particular health-related behaviour.
4. Perceived barriers, that is impediments to, or the likely cost of, change in health behaviours.

In addition, a trigger is needed that will start the whole process off. This trigger can be internal, such as an illness, or external, such as a health promotion campaign, or a combination of the two.

In a review of 46 studies conducted over a ten-year period using the HBM and the extent to which it was a predictor of health behaviour (Janz and Becker, 1984), it was found that of the four constructs perceived susceptibility, benefits and barriers were all consistently associated with outcomes. However, perceived severity was not reliable and was found to be a poor predictor. The review suggested that the HBM is important in the explanation of health behaviours, but, although it can account for the variance in health behaviour that is dependent upon an *individual's* health beliefs, it cannot account for important social, cultural and environmental influences. For instance, a health behaviour such as not drinking alcohol may be due to its proscribed nature in some religions, rather than the individual's particular health beliefs about the effects of alcohol on the mind and body. The HBM also assumes that good health is a goal that is always highly prized and much sought after despite the fact that there is a substantial body of work on the sick role which implies this might not always be the case (Fox, 1968). Indeed, this literature suggests that becoming ill is a way of withdrawing from social responsibilities and obligations while at the same time being nurtured and receiving care from others. As such ill health, rather than good health, may be a rewarding goal. The HBM also assumes that there is always a variety of triggers that can initiate the process of change, but in practice this may not be the case – an expected change in behaviour may not follow the trigger, or may occur without an apparent trigger.

Self-efficacy theory – Self-efficacy theory, as developed by Bandura (1977), is based on the notion that health behaviours will be dependent on the extent to which an individual is confident in his or her ability to successfully mediate change. It is suggested that those with high levels of self-efficacy are more likely to modify their behaviour and stick with the change. In fact, the internal motivation to change is seen as fluid, so it is possible to increase

levels of self-efficacy. Indeed, increasing levels of self-efficacy has been successfully used in health promotion both to modify individual health behaviours known to be important factors in the aetiology of heart disease, and in more general cardio-vascular health programmes (Birkett and Holz, 1994). In common with the HBM, self-efficacy theory focuses purely on internal drives and motivations. No consideration is given to the influence of forces outside of the individual.

Health action model – The health action model focuses on the interaction between community expectations, personal health beliefs and an individual's personal motivations. It is the collaboration between the type of beliefs and attitudes prevalent within a social group, an individual's personal health beliefs, and any motivations that she or he may have that will influence the intention to act that is seen as crucial. So according to this perspective, it is only when personal, social and environmental obstacles are overcome that health behaviour will change. Clearly the health action model takes into account the influence of others and the wider social environment on health behaviour, so avoids one of the limitations of the HBM and the self-efficacy model. It has been used to elicit a range of subjectively assessed 'normal' health-related values and behaviours within particular communities and the existence of any obstacles to health behaviour change, for example Fong and Watt (1994) used it to examine the level of preventive health behaviour within the Chinese community in the UK.

Health locus of control model – The health locus of control (HLOC) model examines the extent to which individuals feel they have control over their health (internal), the extent to which they feel that outside forces, such as health professionals, will dictate their health (powerful others) and the extent to which they feel that God or fate will control their health (chance). Although a strong internal locus of control has been shown to be positively correlated with preventive health behaviours and better general health status (Hawkins, Duncan and McDermott, 1988; McLean and Pietroni, 1990), it has been suggested that a strong internal locus of control is unlikely to be a positive predictor of preventive health behaviours in all situations. For example, a strong internal locus of control may be an unrealistic attitude for those with chronic health problems. Indeed, findings are inconsistent, with some studies linking a strong chance health locus of control with age, those with limited education and women, while others do not (Calnan, 1988; Raja, Williams and McGee, 1994). In addition the HLOC model cannot account for the relationship between demographic and socioeconomic variables and health. Indeed, the authors of the HLOC scale (Wallston, Wallston and DeVellis, 1978) suggest that the HLOC model alone cannot explain most of the variance found in health behaviour.

Overall it is clear that no model alone can account for all the variance in health-related and health-seeking behaviours (Vetter, 1991). Indeed as already mentioned, some researchers have found little, if any relationship between health beliefs and health behaviours. Consequently, it is important to recognise the limitations of these models.

Health promotion based on the frameworks provided by these models is based on the notion that ill health can be avoided by a change in behaviour and that individuals, once informed, have a level of choice and responsibility over their own health. For example, once informed of the links between smoking and lung cancer individuals will want to give up smoking and

rates of lung cancer will decline. However, it is also important to recognise that health beliefs and behaviours should be examined as a social product within a framework of culture and socioeconomic position (Donovan, 1986). In addition, it is not only that health beliefs and behaviours are influenced by socioeconomic position, socioeconomic position also has a direct influence on health status (Townsend and Davidson, 1982). Racism, poverty and disadvantage will all have a detrimental affect on health, so health beliefs and consequent behaviours are only one of many influences on health. Consequently, when considering health beliefs and behaviours it is important to take into account structural factors outside the individual's control – such as level of income, availability of exercise facilities – as well as cultural factors and sources of information. For example, not all groups have the same level of choice over their behaviour. Poor families may have little choice over their consumption of cheaper, processed, high fat foods rather than more expensive healthier options.

If material factors are important in determining the ethnic variations in health, as some have suggested (Nazroo, 1997), improvements in employment prospects, better housing and a more equitable distribution of material resources are likely to be at the centre of any significant change. So it is in partnership with improvements in the material environment that health education and promotion have the most to offer. Informed choice will not always be the healthy choice, but a transformation of the social condition may make this more likely. When structural factors are considered alongside behavioural factors it is also less likely that we will rely on essentialist explanations of ethnic variations in health, which are based on assumptions about cultural or biological differences and which do not take into account the wider social constraints upon health and health behaviour. Indeed, research that has not done this has led to a type of victim blaming, where ethnic minorities and their culture have been blamed for both inequalities in health and inequalities in the delivery of health services (Pearson, 1986). It is the interface between culture and socioeconomic position that is often ignored. Here it is also important to remember that culture is not static, but constantly changing and evolving. Indeed, as we suggested earlier, within each ethnic group there is a range of cultures.

Nevertheless, cardiovascular disease is highly correlated with a number of health related behaviours, such as smoking, a diet high in saturated fats and a lack of physical exercise. It has been demonstrated that changes in any or all of these behaviours would bring clear health benefits, and it is at the junction between health beliefs and health behaviours that health education, which is sensitive to the interplay of individual, cultural and structural factors, can play a strategic role. First to educate, to allow informed choices about health to be made and, second, to motivate, to act as a catalyst to change.

METHOD

The sample

The sample for this survey was selected from respondents to the *Fourth National Survey of Ethnic Minorities*. This nationally representative survey of the main ethnic minority groups in the UK, carried out by the Policy Studies Institute and Social and Community Planning

Research, allowed the purposive selection of 50 respondents for this study: a South Asian group of 40 respondents, consisting of Indians, African Asians, Pakistanis and Bangladeshis; and a comparison group of ten white respondents. Demographic information collected in the *Fourth National Survey of Ethnic Minorities* allowed us to include respondents who represented a variety or religions, both men and women, both those born and those not born in the UK and different socioeconomic groups. Material from the health section of the *Fourth National Survey* included questions on the diagnosis and symptoms of heart disease, smoking behaviour, the consumption of alcohol and the chewing of paan (Nazroo, 1997). Consequently, we were also able to include respondents on the basis of these factors. Respondents were selected from Greater London and Leicester. Details of the sample used in this study are shown in Table 1.

Table 1. Details of the study sample cell counts

	Indian or African Asian	Pakistani	Bangladeshi	All South Asians	White
Men	13	5	7	25	6
Women	7	5	3	15	4
Non-UK-born	17	6	7	30	n/a
UK-born	3	4	3	10	n/a
Muslim	7	10	10	27	0
Hindu	10	0	0	10	0
Sikh	3	0	0	3	0
Total	**20**	**10**	**10**	**40**	**10**

The selection of such a sample enabled us to address how health beliefs and behaviours varied as a result of cultural factors, how and why access to health information varied across ethnic groups and what role other factors of importance may have played. Although the sample was small and could not be said to be statistically representative of the populations from which it was drawn, the strategy of purposive sampling, using the range of characteristics described above, meant that we could be confident that it represented the *range* of attitudes and behaviours of the populations from which it was drawn.

Interviews

Interviews were carried out by experienced interviewers of similar ethnic origin to the respondent and were conducted in the language of the respondent's choice. Languages used included English, Punjabi, Urdu, Gujerati, Hindi and Sylhethi. Interestingly, interviewers suggested that if respondents could speak English they preferred to be interviewed in English. This was particularly the case for Indian and African Asian respondents. The time taken to complete interviews ranged from 40 minutes to two hours, although most took about an hour. Interviews were taped, transcribed and, where needed, translated into

English by the interviewer. Almost all of the interviews were conducted in the respondent's home.

Information was collected on the respondent's age, occupation, ethnic group, marital status, place of birth, if applicable length of residence in the UK, and current health status. The interviews explored respondents' understanding of the nature of heart disease and their knowledge of the potential influences of diet, exercise, smoking, alcohol and the use of chewing products on their level of risk of heart disease. Of particular interest was the extent to which personal behaviour had been modified in response to health beliefs or health information aimed at improving health, and the extent to which respondents faced obstacles preventing modification. Interviews also explored influences on health beliefs and behaviour within the household and wider family, in the respondent's community and from general sources, such as health professionals, the media and the formal educational system.

Methodological issues

In the course of carrying out the fieldwork a number of difficulties arose that appear to be unique to a study of South Asian ethnic groups in the UK. Although these difficulties were not insurmountable, their uniqueness to fieldwork on ethnicity makes it worth discussing them and how they were overcome at some length. First, gaining access to some respondents proved to be complicated. All the respondents approached had been interviewed between six to eighteen months previously for the *Fourth National Survey of Ethnic Minorities* and had indicated they were happy to be re-contacted for a further interview at a later date.

After being selected for inclusion in this study, respondents were initially contacted by a letter, written in English, explaining the purpose of the study. We decided not to send letters in South Asian languages as, although we knew which languages respondents spoke, we had no knowledge of their literacy in those languages. Interviewers were then instructed to make initial contact by telephone to arrange a convenient time to carry out the interview. However, this type of approach was not always successful. Interviewers suggested a number of respondents had little or no recollection of their *Fourth Survey* interview and many were reluctant to take part in this follow-up survey. In fact, all of the South Asian interviewers for this study found that face-to-face contact proved considerably better than a telephone approach in gaining co-operation with the study. Indeed, many South Asian respondents who had previously not responded to the initial letter or had refused to take part over the telephone, changed their minds and consented when asked face-to-face. Interviewers felt that visibly being part of the same community made gaining access and consent easier. However, here they felt that it was familiarity with the respondents' first language, rather than religion or culture, that was the key. The ability to communicate in the respondents' language or the language of their choice was crucial in overcoming initial objections and hesitancy. Some Bangladeshi respondents appeared to be particularly concerned that interviews might be related to investigations from government departments. Again reassurance that this was not the case and guarantees of confidentiality were more acceptable when given in person rather then over the telephone. The white interviewer did not find a noticeable difference between telephone and face-to-face approaches.

Some of those we had chosen to include in this study were untraceable, usually because they had moved. A small number refused to take part for a number of reasons, including: lack of time; finding the original survey difficult; bereavement of a member of the family; and being in purdah.

The gender of interviewers was an issue for female Bangladeshi and Pakistani respondents. At least one interview with a young Pakistani female was refused on the basis that the interviewer was male, while one Bangladeshi woman was concerned that community members might jump to the wrong conclusions and cast aspersions on her character if she allowed a male interviewer into her home. In addition, those female Pakistani and Bangladeshi respondents who had agreed to be interviewed by a male interviewer and were not comfortable being alone with him, generally conducted the interview in the presence of other family members. Bangladeshi and Pakistani females were also more likely to seek consent from spouses, or other family members, before taking part in the study. However, interviewers reported that 'family interviews' were rare. Only a minority of those spouses or family members who were present in the room during the interview actually involved themselves in it. However, it is quite possible that having family members present influenced respondents answers. The possibility of having difficulties in interviewing female respondents was overcome by one male Indian interviewer by ensuring that his wife always accompanied him on such visits. In contrast to the responses received by the male interviewers from female respondents, the female Indian interviewer found that female Indian and African Asian respondents were more comfortable being interviewed during the day, when husbands and children were absent.

Some South Asian respondents found the initial questioning on ethnicity difficult to comprehend. Some were uncertain about whether to choose a group based on religion or one based on country of origin to describe their ethnicity. Others chose the broader term Asian rather than more specific national or ethnic group labels. Other respondents felt the line of questioning was bizarre as they clearly shared the same ethnic group as the interviewer, thus this information was assumed to be given or taken for granted.

All of the South Asian interviewers reported that respondents immediately understood that the interview referred to the western concepts of heart and heart disease. When interviews were conducted in South Asian languages interviewers found it useful to use the English words of heart and heart disease, particularly when there was no direct translation or the nearest approximation would have had emotive or non-western connotations. Conceptual difficulties were most frequently experienced in the section on dietary habits and are discussed in detail in that section. During the interview, problems arose concerning questions asking potentially culturally sensitive questions on smoking and alcohol use. Members of some South Asian groups were clearly uncomfortable at being asked questions on alcohol and some Muslims were offended at being asked them – indeed our Muslim interviewers were uncomfortable at having to ask such questions and usually followed them with an apology and a confirmation of confidentiality. Older and non-UK-born female Muslims indicated that their beliefs and behaviours in relation to alcohol should have been obvious to the interviewer (i.e. that it was forbidden and they did not drink it) and that it was not for them to have any opinions, knowledge and beliefs over and above religious ones on alcohol.

The extent to which some respondents, in particular Muslims, were honest about their use of cigarettes and alcohol was on occasions questioned by their interviewers, who felt that a number of respondents answered in the negative to prevent a deeper line of questioning being followed. Indeed, during one interview a Bangladeshi woman's assertion that she had never smoked was directly challenged by her children. On another occasion a Pakistani man mouthed to the interviewer that he drank alcohol, but was unable to say this out loud or discuss his drinking because his mother, unaware that he drank, was in the adjoining room. There was also an indication that some Indian male respondents were not completely open about their drinking habits and may have consumed considerably more than they admitted to. For example, when questioned on his alcohol consumption, one male non-UK-born Indian stated he drank one beer a day with his evening meal. However, later in the interview he drank a beer with no indication that it would usually be accompanied with food. In addition to this, his wife complained about his drinking in the presence of the interviewer and indicated that one drink a day would be the exception rather then the norm for him.

There were clear differences between interviews conducted with non-UK-born and UK-born respondents. Interviewers suggest that UK-born respondents were more confident and articulate in their answers, but not necessarily more knowledgable. Also of interest was that non-UK-born Bangladeshi women were uncomfortable at being asked their age, usually because they did not know their date of birth and so could only approximate it.

2. Sources of health information

Information on health can be obtained through a wide variety of channels. In addition to informal sources of information, such as family and friends, the main channels of such information mentioned by respondents in this study included: doctors and other health-care workers; the media; their schooling and places of work; and community centres and other places of leisure activity. However, there were important variations between ethnic groups, men and women, and generations in the channels used for health information. Not surprisingly, the communication of health information to respondents was described as being dependent on the language and communication skills of both those giving and those receiving the information. So, to a large extent the differences between the groups were dependent upon English language skills and literacy in both English and the respondent's first language – six of the ten Bangladeshi respondents interviewed could not read or write in either their own language or English. As expected, South Asian respondents with little or no English language skills, had the narrowest range of possible information sources. However, nearly all these respondents had access to a GP who spoke the language of the respondent's choice and could be used as a source of health information.

HEALTH-CARE WORKERS

For most South Asian and white respondents the GP was their primary source of health advice and information. However, a few respondents also had more immediate access to medical practitioners, either in the family or among close friends, and they would consult them before, instead of, and after their GP. Those in poor health, due to heart disease, diabetes or other chronic disorders, were in regular contact with GPs and/or hospital services and tended to gain a large amount of health information related to their disorder from health professionals. They were also able to use these sources to obtain more general health advice and information. The role of the GP took on a much wider significance for those respondents who, because they had limited ability in English or were not literate in either English or their first language, used their GP as their major source of health information. However, GPs rarely gave unsolicited health information and advice on topics such as the prevention of heart disease, with consultations only focusing on the presenting symptoms or complaint. Wider health information was rarely, if ever, offered by GPs, nor was such health promotion expected by respondents unless they specifically requested it.

South Asian respondents who did not speak English had access to, and preferred to consult with, GPs who spoke the same language as themselves. A small number of South Asian men who spoke English also preferred to consult a doctor of a similar ethnicity to themselves.

They felt this would enhance communication regardless of the language that the consultation took place in. One white respondent also had a preference for consulting a doctor of similar ethnicity. However, for this respondent it was not an issue of improving communication, but a result of a prejudice in which the competence of non-white practitioners was questioned. Most South Asian respondents who spoke English and most white respondents felt the ethnic group of the doctor to be an irrelevance. What was of importance was whether the doctor was a good one who listened and responded to patients needs. The ability to access a GP when needed was an issue of concern to one white woman with heart disease:

> With our doctor, when you go up there, they're so packed up there is a week's waiting list. By the time you see him you're feeling better.

None of the female respondents suggested that the gender of their GP was an issue for them personally, although one female Pakistani respondent suggested this was of great importance to other Pakistani women.

Respondents were also asked about any contact they may have had with alternative or traditional practitioners. In particular, which types of symptoms or illnesses respondents considered applicable for this type of approach and whether alternative medicine would be used instead of, or in conjunction with, western medicine. In fact, few respondents had received health information from alternative or traditional practitioners and even fewer would consider consulting such practitioners for what they perceived to be serious disorders, such as heart disease. This finding is supported by data from the Fourth Survey, which show that few people of South Asian origin make use of alternative practitioners (Nazroo, 1997). The few South Asian respondents to this survey who had used traditional medicine in the past were generally unimpressed. However, two Pakistani women had used alternative medicine and said that they would do so again in the future. One, a pharmacist, used and sold alternative medicines and considered herself a practitioner in the application of cactus juice and aloe vera. The other, an older housewife who spoke little English, had access to a homoeopath in the family who was regularly consulted for health advice.

MEDIA

Leaflets on health issues of one sort or another, in both English and a variety of other languages, had been seen by most of the literate South Asian respondents, although they were more likely to have been seen by men of both generations and UK-born women than non-UK-born women. Leaflets were usually seen in doctors and hospitals waiting areas, and to a lesser extent in pharmacies and public libraries. Public libraries were not otherwise widely used as a source of health information. White respondents seemed to be less likely to report seeing or reading health promotion leaflets. Health promotion posters in waiting rooms and on hoardings in the street were mentioned by a number of South Asian respondents as a source of health information. Warnings printed on cigarette packets were also noted by smokers and non-smokers alike. Advertising campaigns on drinking and driving were more likely to be mentioned by South Asian male respondents. White

respondents also seemed to be less likely to refer to advertising campaigns as a source of health information.

For all South Asian respondents who spoke English, television was a popular route for gaining both general health information and that relating specifically to heart disease. Programmes dedicated to health, documentaries, consumer programmes and the news were all mentioned as sources of such information. A number of respondents mentioned televised exercise sessions, such as 'Mr Motivator' on breakfast television, as part of their exercise routine. Few of the respondents had access to Asian language channels on cable or satellite television, and those that did suggested that programmes on health were rarely watched. However, this may have been due to the lack of such programmes being made and broadcast on Asian channels, rather than any particular preference of respondents. Whites also used the television as a major source of health information, particularly about heart disease. However, some white respondents suggested they actively avoided watching health programmes on the television. This tended to be out of a sense of cynicism or fatalism. Indeed, one white respondent with heart disease avoided watching, reading, or listening (on the radio) to any health information. One South Asian respondent with heart disease also avoided health information as much as possible as he found it upsetting to be reminded of his own poor health.

In contrast, local Asian language radio stations were often listened to by respondents from each of the South Asian groups. Phone-in health programmes on the radio held in South Asian languages were popular and listened to as a source of health information. Radio was a much less popular source of health information for whites. They were more likely to report the use of the television or the written media, newspapers or magazines.

National newspapers and magazines – both those dedicated to health and to women – were more popular with men than women from South Asian groups, even after allowing for differences in the rates of literacy between men and women. A number of men said that they gained health information from women's magazines that they had found and read in doctors' and hospitals' waiting rooms, rather than at home or in friends' homes. Most male Pakistanis read newspapers written in Urdu, for example the *Jang* newspaper, as well as those written in English. Ethnic minority newspapers, such as the *Gujarat Samachar* were also mentioned as a source of health information by two Indian respondents with heart disease.

National newspapers and women's magazines, although not as important as the television, were also an important source of health information for some white respondents. Again, health information in women's magazines was not restricted to women as white men read these as well.

Supermarket information and product labels were read by nearly all respondents who could do so. However, this was usually just to check the sell-by date or cooking instructions, rather than to determine information related to health promotion, such as fat or calorific content. UK-born and university-educated respondents were more likely than others to check product labels for ingredients. Muslims were likely to check that products contained no pork and vegetarians that they contained no meat.

SCHOOLING, WORK AND COMMUNITY CENTRES

A minority of mainly male non-UK-born South Asian respondents reported that their school education outside the UK had been a source of health information for them. In fact, for non-UK-born respondents, school education in their country of origin was one of the few places they had received any information about the advantages or dangers of using chewing products, such as betel nut, sopari and paan. The only other source of information on this topic was from older members of the respondent's community, who were questioned about it by both non-UK-born and UK-born respondents. White respondents did not suggest that their general schooling was a source of health education.

The Bangladeshi women who were illiterate in both English and Sylhethi suggested that the knowledge their children had got from school was an important source of health information for them. Children talking about the health education that they had received at school often inadvertently informed their parents about these issues. Respondents also reported that on occasions this was also done purposely, with children being instructed to take home written health information to their parents which they would then translate and explain.

The workplace, places of religious worship and community centres did not feature highly as sources of health information for both South Asians and whites. Of those respondents who were employed, most received little or no health information, nor did they expect it unless the issue related directly to their work. In fact, only one respondent received targeted health education from the workplace. Respondents who worked as health professionals (a pharmacist and a doctor) and the owner of a grocer's shop selling cigarettes and alcohol, were the few who regularly came across health information at work. The shop owner received health education material with some products he sold and the health professionals received regular health information as a continuing part of their job, often through specialist journals.

Muslims were more likely than members of other religions to gain health information from their place of worship. One male Pakistani said that articles on health that were thought to be of interest were regularly displayed on a notice board at the meeting place of his religious group. Other Muslims suggested that religious leaders might be consulted for health advice or holy water, which could be used for its curative properties. However, this route was confined to men as women were much less likely to attend places of worship. The Koran was also suggested as a source of health information, particularly on the dangers of alcohol use.

FAMILY AND FRIENDS

The extent to which family and friends were used as a source of health information and advice varied greatly. For some of the white men in our sample, partners and children were not only a source of information, advice and help, but often provided the motivation to change health-related behaviour. One white male suffering from heart disease was offered a holiday by his children on the condition that he lost weight beforehand, which resulted in

him losing half a stone. Even for those in 'good health' the primary motivation and encouragement to change health-related behaviour more commonly came from family and friends than from health professionals. Indeed, respondents with chronic health problems were generally more likely to discuss health with family and friends than health professionals and, in addition, they were likely to be just as influenced by any advice given by them as by health professionals. As we have already reported, some, however, had family and friends who were health professionals who could be used for specialist advice. This appeared to be the case particularly for Indian and African Asian respondents who reported that a number of their family members, friends or colleagues were members of the medical profession.

Family and friends could encourage negative as well as positive changes in health behaviours. For example, the white man mentioned in the previous paragraph was encouraged to resume his alcohol consumption by his family who suggested he had become less outgoing and sociable when not drinking:

> If I went out I never used to drink anything, only lemonade, and the youngest one [daughter] says to me, 'Why don't you come out of your shell? Why don't you start drinking and be a man?'

Another white male respondent suggested he only smoked to keep his wife, who was also a smoker, company, and when she gave up so did he. A white female respondent encouraged her partner to recommence smoking after he had attempted to give up, because she was unhappy with the excess weight he had gained and his increased irritability. Past experiences within the family strongly influenced white respondents. One man and one woman spoke of how their background influenced aspects of their current health behaviour. Both grew up with heavy drinkers and related their choice to abstain completely in one case and to drink on very rare occasions in the other, to childhood experiences.

Of course advice and information with regard to health was often reciprocated, with respondents giving as well as receiving health information. Overall, white respondents suggested their health-related behaviours were more influenced by others than the health behaviour of others was influenced by them. However, it may simply be that changes in their own behaviour were more salient and therefore more readily remembered. White respondents also suggested they were less likely to discuss health with friends. This may have been age related as our white group tended to be older and generally more infirm than our South Asian respondents and, therefore, to have more restricted social circles, being less able to see and make friends than their younger counterparts. In addition none of our white respondents had friends who were health professionals, although one had a number of nurses in the family.

Among the South Asian respondents there appeared to be considerable discussion of health issues among family members and friends, both with those who were health professionals and those who were not, regardless of age, generation, gender or ethnicity. This involved both the giving and receiving of advice. For Pakistanis and Bangladeshis there was no discussion of alcohol use, the focus was primarily on tobacco use and diet. For those who smoked tobacco or chewed substances such as betel nut, friends and family were mainly concerned with persuading the respondent to reduce his or her tobacco consumption. However, in two cases friends who smoked had encouraged ex-smokers to restart. Smoking

also featured as a central area of discussion on health topics among Indians and African Asians, but levels of alcohol consumption were also a concern among the family and friends of these respondents. In particular, the spouses of those who drank or smoked tried hard to persuade them to give up or reduce their consumption of tobacco and alcohol, with mixed results.

Diet and weight was also much discussed among the families and friends of all the South Asian respondents. There was concern about the diet and level of physical activity among children, and those who were perceived to be overweight were encouraged by their spouses and friends to diet and exercise. Respondents were also involved in encouraging others to lose weight. There appeared to be some discussion of the relative benefits of vegetarian and traditional foods versus western foods.

As the above discussion suggests, both men and women discussed health issues with their family and friends and appeared to be equally involved in encouraging others to improve their health. However, all the women living with partners and/or children were responsible for the family's diet. For most of these women, with the exception of Bangladeshis, this involved the purchase as well as the cooking of food. These women, regardless of age, generation and ethnicity, attempted to provide healthy food for their families, but, as discussed in the section on diet, for most of them their choices were also dependent on the preferences of their spouses and children.

DISCUSSION

Nearly all of our interviewees, except Bangladeshi women and some elderly white respondents, had access to a variety of sources both within their own families, communities or in the wider sphere, such as the media. Overall few differences were found between South Asian and white respondents in the channels used to acquire health information. Among those South Asians with good English language skills, the television, magazines and newspapers were key sources. In addition, those fluent and literate in South Asian languages used South Asian radio stations and materials, such as newspapers, written in those languages. In contrast to whites, for health issues the radio was possibly as popular, if not more popular, as the television among South Asians. Radio stations had a wider audience than television probably because they had more programmes targeted at South Asian communities and they could be accessed by those who did not speak English. Interactive health programmes on the radio, for example phone-ins, were widely listened to.

Overall, differences were more apparent between men and women within ethnic groups than between ethnic groups. The written media were more popular as a source of information among men and television and radio more popular among women. Women were more likely to consult family members for health advice whereas men were, on the whole, just as likely to speak to friends as family on health matters. Only women gained health information from their school-aged children. In contrast, South Asian men were more likely to get health information from places of worship and community centres than both South Asian women and white men and women.

In fact, the relationship between gender and ethnicity seemed a crucial issue in terms of understanding access to health promotion. The group with most difficulty in accessing information on health and heart disease was predominantly female and Bangladeshi. These women were the least likely to speak English or to be literate in their first language, and, consequently, did not have access to most forms of health promotion. They also were less likely than their male counterparts to go to community centres or places of religious worship and were less likely than other South Asian women to listen to South Asian radio stations. Health information for these respondents appears to have largely been obtained through friends, family and their children's schools.

As the previous paragraph suggests, literacy was the key issue influencing the sources respondents used to gain health information and advice. Written material in South Asian languages was only accessible to those able to read and write in their first language. Those with limited English language skills were often dependent upon informal discussions with family or friends, local radio broadcasts in South Asian languages, to a lesser extent South Asian programmes on cable or satellite television, and occasional consultations with their GP. As literacy was a key problem for some South Asian groups there would be little point in increasing the amount of information produced in community languages. Indeed, we might expect that UK-born members of ethnic minority groups are even less likely to be literate in South Asian languages than their parents. More extensive health promotion on South Asian radio could be developed, particularly using the interactive, phone-in format. General information on coronary heart disease could be regularly broadcast within these programmes.

The majority of both white and South Asian respondents had no preference for the ethnicity of their GP. For most respondents a good doctor was one that allowed adequate time for each consultation, allowed the patient to speak freely without being hurried and then offered appropriate help. However, for those unable or uncomfortable in communicating in English it was important that their GP could speak their language. None of our female respondents suggested that the gender of their GP was an issue for them, although there was a suggestion that it might be for the other female members of their family and friends. This finding is in contrast to previous work in this field suggesting that gender is of primary importance to South Asian women (Rudat, 1994; Nazroo, 1997). Indeed, gender was certainly an issue when participating in this project for Pakistani and Bangladeshi women. It is possible that the two women, who did not take part in this project as we could only offer them male interviewers, may have felt similarly strongly about the gender of their GP. Interestingly, few respondents displayed any interest in alternative medicine, and none would only rely on traditional medicine for serious complaints such as heart problems.

Improving access to health information might be achieved through opportunistic health counselling at GPs' surgeries, as those respondents who did not speak good English and who were not literate in any language reported that their GP was an important source of health advice. However, within our sample, GPs did not appear to use such opportunities for more general health promotion, so these visits were a poor source of information and advice on general health and heart disease unless the patient directly solicited it. In fact, hard pressed GPs are unlikely to have adequate time for opportunistic health education. This is of some importance, as the extent to which respondents were motivated to change behaviour was

often dependent upon where the information came from, with respondents attaching more weight to verbal advice from health professionals than from other sources. This finding is in line with earlier work suggesting that advice given during GP consultations is effective in influencing patients to change health related behaviour (Jamrozik *et al.*, 1984). However, the time limitations of most GP consultations suggest that the development of alternative strategies, such as playing health promotion videos in waiting rooms, should be investigated. Patients could be encouraged to watch a video on heart disease, in the language of their choice, while waiting to be seen.

As information brought home from school by children appeared to be important, an alternative would be to make more use of this channel of health information. For example, open days on health issues could be held at schools to which children could be encouraged to invite their parents. In addition, schools in certain geographical areas might productively distribute information on the factors likely to increase risk of heart disease to their pupils. Children could also raise parental awareness as part of a broader health education campaign by taking project work home and discussing it. Possible models for development might usefully be based on work already done building links between local councils, education and health departments in Tunbridge Wells (Williams, 1994).

The workplace could also be used as a vehicle for the communication of health information. Employers in particular geographical areas or industries could provide a particularly valuable channel and be encouraged to participate in 'healthy heart' campaigns. In addition, community centres and places of religious worship could be more fully used as information channels. However, both these sources are largely inaccessible to Muslim women, so participants should be encouraged to bring the material distributed home and discuss it with their families.

3. Health beliefs and behaviours in relation to specific risk factors for heart disease

Respondents were asked about their knowledge of heart disease, and in particular what they thought caused it and the best ways to prevent it. Such general questions were followed by more specific ones on the risks associated with smoking, alcohol, chewing substances such as paan and betel nut, a lack of exercise, and a poor diet. Respondents were also questioned about how they had modified their behaviour in the light of their beliefs about specific risks.

On the whole respondents, regardless of ethnic group, age, generation or gender, believed that smoking, a poor diet, particularly one high in fat, a lack of physical exercise, drinking alcohol, chewing substances with or without tobacco, and stress, increased a person's risk of heart disease. For example, one UK-born Bangladeshi, summing up his views, said:

> [to avoid heart disease] he should eat the right food, do some physical exercise and obviously avoid smoking.

Heredity as a risk factor for heart disease was rarely mentioned, even by those with a family history of it. It was only considered by university-educated respondents, usually with some training in health. In addition, few South Asian respondents were aware that certain ethnic groups had higher rates of heart disease than others. It was again only university-educated respondents who were aware of this. Interestingly, in response to general questions notable differences were found between the opinions expressed by Bangladeshi respondents compared to other ethnic groups. Most Bangladeshi respondents, including those who smoked, said they did not know the causes of heart disease. However, when they were asked directly about specific risks, such as those associated with smoking, most appeared well informed.

For this chapter, each of the specific risk factors raised in the interviews – smoking, drinking alcohol, the use of chewing products, not exercising and a poor diet – is discussed in terms of both health beliefs and health behaviours. Attention is paid to how beliefs vary across ethnic groups and how this is patterned by age, generation, gender, religion, etc. The translation of specific health beliefs into behaviours to protect health is also an issue discussed here, but an exploration of reasons for the mismatch between beliefs and behaviour is left for Chapter 4.

SMOKING

Smoking is the largest preventable cause of death in the UK. However, since the dangerous effects of smoking were first widely reported in the 1960s rates of smoking have declined. However, this decline has not been equal across all groups and smoking is now largely a habit of the poorest and most disadvantaged socioeconomic groups (Marsh and McKay, 1994). Among the respondents to the Fourth National Survey, from which this sample is drawn, there was a large ethnic and gender difference in the prevalence of smoking, as shown in Table 2 (adapted from Nazroo, 1997).

Table 2. Rates of smoking among respondents to the Fourth National Survey of Ethnic Minorities (%)

	Indians	African Asians	Pakistanis	Bangladeshis	Whites
Ever smoked					
Men	22	29	39	53	67
Women	5	4	4	<1	56
Total	13	16	22	26	61
Current smoker					
Men	19	22	33	49	34
Women	5	3	4	<1	37
Total	11	12	19	24	36
Weighted base	*646*	*392*	*420*	*138*	*2 867*
Unweighted base	*638*	*350*	*584*	*289*	*2 867*

Bangladeshi men were the most likely to be current smokers, with half of them saying they currently smoked, followed by about a third of white and Pakistani men, and a fifth of Indian and African Asian men. In contrast, very few of the South Asian women had ever smoked, while just over a third of white women were current smokers. In contrast, whites were more likely than any other group to have smoked in the past, with over a half of white women and almost two-thirds of white men saying that they had smoked at some stage of their lives. The fact that the differences between current and ever smokers are greater for whites than the other groups indicates that whites are more likely than South Asians to have given up smoking, suggesting a need to improve health promotion in this respect.

In this study, respondents were first asked whether or not they smoked. Smokers were then asked what type of product they smoked, why they smoked, whether they had ever tried to cut down or give up smoking and how successful they had been. Non-smokers were asked whether they had ever smoked and, if so, why they had given up. Respondents who had never smoked were asked why they had never tried smoking. In following this line of questioning it was hoped to elicit respondents awareness of the dangers of smoking and whether this awareness included any knowledge of heart disease.

Among our 40 South Asian respondents nearly a quarter smoked, compared to only one of our white respondents. However, nearly all of our white respondents had smoked in the past.

Health beliefs

Information from health promotion on the dangers of smoking was known by almost all respondents regardless of age, ethnicity, gender or level of education, with most, but not all, respondents agreeing that smoking was detrimental to health and was a key risk factor for heart disease. However, not all respondents with diagnosed heart disease, nor all smokers, were aware of the risks of smoking to cardiac health. Non-UK-born South Asian women appeared to be the least likely to be aware of the links between smoking and heart disease, but were also the least likely to be smokers. In addition to heart disease, smoking cigarettes was also linked by a number of respondents to a range of other illnesses, in particular lung cancer and respiratory difficulties. The dangers to the health of children were highlighted by both men and women, reduced growth in the young and unborn children was a particular worry. Rudat (1994) also found that most South Asian smokers felt smoking was a risk to health. In the BMEG survey over a third of Indian and Pakistani respondents and over half the Bangladeshi respondents believed that their smoking was affecting their current health by at least a fair amount. An even higher proportion felt that smoking would negatively affect their health in the future. And many felt that the effect of smoking could translate into lung cancer and heart disease.

Amongst respondents in this study the belief in the damaging effects of smoking was, interestingly, partly related to its role as an appetite suppressant. Smoking instead of eating was seen as leading to a deficiency of essential nutrients, which in turn slowed down or damaged bodily functions. In contrast, giving up smoking could also be dangerous, with a resulting increase in body weight affecting mobility and motivation. A slightly different approach linked smoking to nutritional and digestive problems. Introducing cigarette smoke into the stomach was thought to inhibit the action of any medication present, therefore increasing discomfort or levels of illness. Smoking was also seen as having a 'knock-on effect' on levels of physical activity, reducing the body's ability to cope with exercise and, consequently, restricting the range of activities participated in.

Some white respondents, aware that smoking was generally detrimental to health, felt it could be no worse than the effects of general air pollution, or the car exhaust fumes that both smokers and non-smokers were forced to live with. This white non-smoking female respondent pointed out:

> mind you, it's [smoking] no worse than the fumes on [the main] road. I've got black soot coming through the air vents so probably I'm the same as a smoker with the pollution.

Certainly many felt that smoking was not the worst culprit in causing ill health. Nutritional intake and a poor diet was perceived by some as the cause of greater harm. This is discussed in the section on diet.

Similarly, not all respondents felt that smokers were necessarily unfit or unhealthy. For some, smoking affected health in quite a complex fashion, and personal vulnerability to ill health or smoking-related diseases was not always influenced by smoking behaviour. This was particularly the case for white smokers, who were more likely than South Asian smokers to feel that smoking was not detrimental to health or that the relationship was not a straightforward or proven one. White respondents also thought that the way the cigarette was made was paramount to the extent to which smoking could cause harm. Loose tobacco, which they rolled into cigarettes themselves, was considered healthier than the prepared variety as it was believed to contain fewer harmful chemicals. The lack of a filter on hand-rolled cigarettes was not felt to pose a health threat.

Health behaviours

In the sample used for this study, all the smokers used cigarettes, although some rolled their own. For those who rolled their own cigarettes, the process of construction was of considerable importance and may well have been a behavioural modification in the light of the particular health beliefs concerning the dangers of smoking, just discussed.

All the smokers interviewed wanted either to cut down or give up their smoking. Indeed, most would have liked to give up completely but felt powerless to do so and would therefore settle for simply cutting down. Many had tried to cut down or give up in the past, but despite their varying levels of success they still considered themselves motivated enough to try to stop or cut down again in the future. National surveys, such as the BMEG survey (Rudat, 1994), report that around two-thirds of smokers from ethnic minority groups want to give up smoking, and the desire to give up may be higher amongst ethnic minority smokers than amongst white British smokers.

Reasons given for trying to give up, or never starting to smoke in the first place, were broadly similar across all groups and fell into four main areas; health, i.e. worries about present or future health; structural factors, such as the cost of cigarettes; cultural, i.e. the acceptability of smoking within the family and the wider community; and personal preference, i.e. simply not liking it. Differences between ethnic groups only really emerged within cultural explanations. On the whole, South Asians were less likely to start smoking because it was not usually considered acceptable, particularly for women, whereas whites were more likely to have given up for health and structural reasons.

The effectiveness of health promotion in this area resulted in health considerations being a key factor in the decision to cut down or stop smoking for both whites and South Asians. However, for non-UK-born South Asian respondents it often appeared to be of a lower priority than cultural and religious reasons. Respondents' expectation of health in the immediate to long-term future and their present and past experience of health were crucial here. Rudat (1994) found that health was one of the main reasons given by those who had successfully given up.

For South Asian smokers in this sample the health of others – both smoking and non-smoking family members and friends – was also highlighted. The expectation that physical health would deteriorate with continued smoking, or the actual development of poor health

linked to smoking, either personally or for a relative or friend, sometimes acted as a trigger to modify smoking behaviour or deter respondents from smoking in the first place. It is of interest that while few South Asian smokers mentioned the possibility of damage to their family's health through their continued smoking, the risk of passive smoking was highlighted on a number of occasions by non-smoking South Asian women with children. The health of their children was often a key factor in motivating these women to encourage their husbands or other family members to give up smoking.

Cost was also of importance as explained by this male Bangladeshi smoker:

> It is very expensive nowadays. My smoking depends on my money.

Cost was a higher priority for older white smokers than for younger unemployed Bangladeshis and Pakistanis. Rudat (1994), in comparing data from the HEA's Health and Lifestyle Surveys of the general population and ethnic minority groups, suggested that cost is more often given as a reason for giving up among white than ethnic minority smokers. Indeed, in our sample, one Bangladeshi student spread the cost of smoking with his peers by sharing cigarettes. Each cigarette would be passed around a group of smokers until it was finished. In this way a single cigarette would be smoked by several people and each would take turns in buying and sharing cigarettes. One of the interviewers suggested this was common practice in Bangladesh and India. The growing number of no-smoking areas also played a role as a deterrent, with some smokers feeling increasingly restricted as work and other public places were becoming out of bounds for their smoking. In addition, non-smokers often viewed smokers as 'social pariahs'. This tended to focus on the smell of cigarette smoke, which many felt to be offensive, because, as well as being on the breath and clothes of smokers, the smell was felt to contaminate those around them and the general atmosphere and environment. Indeed, the smell of cigarette smoke was widely cited by both smokers and non-smokers alike as a key reason for wanting to cut down or give up smoking, or for never starting to smoke in the first place.

Most South Asians and the one white respondent who had never smoked, did not do so simply because of personal preference – it did not appeal to them. UK-born South Asian respondents were more likely to use personal preference as a motivation than their non-UK-born counterparts. This was often in combination with reasons falling into one or more of the other three categories for not smoking; health, structural and cultural. White non-smoking respondents were more likely than South Asian non-smokers to have tried cigarettes, often, but not always, as adolescents or children, but had not found it enjoyable so had not bothered to continue as this white male explains:

> I used to smoke and I thought it was filthy really. I only used to smoke ten a day but I never used to inhale it. I used to puff it and blow it out. And then I thought, oh no! I don't see the point to it, so I went over to a pipe and the pipe was a bit heavy, and I used to roll my own. I thought, oh no! I don't enjoy smoking. I'll pack it up. So I packed it up.

The main difference between ethnic groups was in the extent to which cultural and religious factors were cited as reasons for not smoking. Religious reasons were never mentioned by white respondents, and cultural factors were only mentioned in relation to encouraging the

uptake of smoking. In contrast religious and cultural factors were widely cited by Hindus and Sikhs and to a lesser extent by Muslims. Non-UK and UK-born South Asian respondents used cultural explanations in different ways. The majority of non-UK-born Hindu and Sikh non-smokers suggested the use of tobacco was prohibited in their religious teachings. However, British-born Hindus and Sikhs did not mention religion, instead focusing on social and cultural influences such as parental disapproval. Indeed, one UK-born African Asian male who had smoked in the past was particularly concerned to ensure that his mother never found this out. A small number of Muslims suggested that smoking was against their religious beliefs, but more suggested that smoking was simply culturally unacceptable, especially for women. Respect for elders was cited by UK-born Muslim respondents as a reason for not smoking. However, this did not necessarily indicate non-smoking elders, rather elders who had discouraged younger members of the family from smoking. In this context, elders were not necessarily parents, but could be older siblings or other family members.

When white respondents spoke of cultural or sub-cultural reasons for their smoking behaviour it was in terms of reasons for starting to smoke. Developing a particular image as an adolescent or young adult often entailed smoking, as this white male explains:

> I suppose it all started from when I was young. When we were all kids it was one of those things, wasn't it. Teddy boys – we all had to have a fag in our mouth just to make yourself look big I suppose.

Other white respondents spoke of dabbling in cigarettes as a part of a process of growing-up and experimenting with social roles and relationships. It was widely viewed as normal behaviour; something which all children or adolescents would be expected to try at a certain stage in their social development. Starting to smoke was usually seen as something which was done with others, often as a process of trying to 'fit-in' with particular groups of friends. As we see later, 'fitting-in' was also used as a reason by relapsed South Asian smokers.

Reasons given by smokers for continuing to smoke, even when they clearly disliked this behaviour, were predominantly psychological. Smoking cigarettes created a personal feeling of wellbeing and contentment. Cigarettes were clearly used as an aid to relaxation and were felt to offer a generalised calming effect. Smoking was used as a coping mechanism to deal with 'stress', which was usually defined as external to the person and included any situation respondents felt uncomfortable in, or any problem they felt unable to resolve immediately, as this Bangladeshi male explains:

> I thought about it [giving up] but whenever there is family stress, I forget everything and start [smoking] again

Smoking offered a two-pronged solution. First, it enhanced concentration, allowing respondents to spend greater amounts of time thinking and trying to resolve difficulties, as another Bangladeshi male explains:

> Why I don't give up is because living in a family situation there is a lot of stress and sometimes you come across big problems where you cannot find a solution, then you can 'talk' to a cigarette

Second, it had a calming effect which stopped respondents from losing their tempers or taking it out on someone else.

Many South Asian smokers did not enjoy smoking and simply felt trapped and powerless to take control and give it up. They described smoking as a 'habit', something they were compelled to do and had little control over. Like other bodily functions, such as eating and drinking, this habit had become part of their daily lifestyle and part of their social activity. As such, for some the hardest cigarette to give up was the one after food, as this male Bangladeshi explained:

> It would be a bit difficult to give up [smoking] completely ... you get the urge to have a cigarette after a meal.

The most difficult situation to avoid smoking in was the social arena. Not only would ex-smokers desire to 'fit-in', but they would be encouraged to do so by those smokers present as this male Bangladeshi smoker explained:

> Once I really tried. I didn't smoke for nearly two months. Then I started again, gradually, because of my [smoking] friends, they inspired me to start again.

Indeed, another smoker who had successfully given up for over six months resumed smoking, unable to resist the temptation in social situations with other smokers present.

Not surprisingly, given the descriptions of using smoking to relieve stress, one of the main difficulties respondents mentioned when trying to cut down or give up were rapid mood changes, irritability and an inability to communicate properly. Similar findings are found in the quantitative data reported in Rudat (1994).

Feeling fed-up, negative or tense was often experienced as overwhelming, as described by a male African Asian smoker who had unsuccessfully attempted to give up smoking:

> I became very short-tempered. I found it hard to communicate with people around me and I got very impatient.

Indeed, for some the situation became so untenable that non-smoking partners requested a resumption of smoking, as this white woman did:

> [He] stopped for about a year and I told him to go back on them because it [not smoking] gets him all uptight ... and he was so miserable so I told him – get back on the fags.

Consequently, to some extent the benefits of smoking outweighed the benefits of giving up.

Discussion

There was clearly a need for more information both to smokers, non-smokers and those suffering with heart disease. Non-UK-born South Asian women were uninformed about the relationship between smoking and coronary heart disease. Although rates of smoking are extremely low among this group, their opinions are likely to influence their husbands, children and wider family members. The link between social support and smoking – for example, the influence of family and friends could be more widely exploited in encouraging

smokers to give up or not to start in the first place. This information would need to be specifically developed and targeted at the concerns of these women, possibly focusing on the effect of passive smoking on children and the drain on the family budget for expensive cigarettes. Information for smokers would need to deal with perceptions of increased body weight on cessation and the idea that smokers can be 'fit'.

Nearly all South Asian smokers clearly wanted to give up or cut down but felt unable to do so. Smoking was often used as a coping mechanism to deal with everyday difficulties and problems. Targeting cessation programmes specifically at Asian men, imparting skills which might better equip them to deal with problems without smoking and to cope with social situations with other smokers, may be useful. Increasing the number of no-smoking areas, both in workplaces and in public buildings would further reinforce the message, as would increasing the cost of cigarettes. Although increased cost might cause additional hardship among those on a limited income.

ALCOHOL

National surveys such as the General Household Survey and the *Fourth National Survey of Ethnic Minorities* (see below) reveal little alcohol use among South Asian women. Among South Asian men the picture is more complex with major differences appearing between religious groups. Indeed, high levels of alcohol-related ill health have been found among Punjabi Sikhs (Balarajan and Raleigh, 1993).

Table 3. Alcohol consumption among respondents to the Fourth National Survey of Ethnic Minorities (%)

	Indians	African Asians	Pakistanis	Bangladeshis	Whites
Currently drink alcohol					
Men	66	55	8	4	92
Women	18	26	0	2	83
Total	40	41	5	3	87
Weighted base	*643*	*391*	*419*	*138*	*2866*
Unweighted base	*637*	*349*	*582*	*289*	*2866*

Table 3, taken from the *Fourth National Survey of Ethnic Minorities* (Nazroo, 1997) shows that over nine out of ten white men and four out of five white women drank alcohol. In contrast, about three-fifths of the Indian and African Asian respondents in that survey never drank alcohol. Very few of the Pakistani and Bangladeshi respondents said that they had ever drunk alcohol. As you would expect this is strongly related to their religion – not shown in the table is that among the Indian and African Asian respondents just under ten per cent of the Muslims said that they drank compared to about forty per cent of the Hindus and

Sikhs. There were also gender differences in the prevalence of reported drinking among the Indian and African Asian respondents, with over three-quarters of women saying that they never drank, compared to about forty per cent of the men.

Respondents in this study were asked if they drank alcohol and, if they did, the extent of their drinking and the situations they usually drank in. Those who did not drink alcohol were asked about any influences on their decision not to drink. All respondents were questioned on their beliefs regarding alcohol intake and health.

Among the 40 South Asian respondents we spoke to a quarter drank alcohol, over half had never drunk alcohol and the remainder said that they were ex-drinkers. Bangladeshis and Pakistanis were the least likely to drink alcohol or to have ever tried it. Nearly all of the white respondents said that they drank alcohol.

Health beliefs

Knowledge and beliefs about drinking alcohol varied greatly across religious groups. Muslims generally felt that drinking alcohol was detrimental to both physical and mental health, as well as being proscribed by their religion. The adverse effects of alcohol were felt to particularly involve the liver, stomach and circulation, with raised blood pressure, damage to the brain and internal organs being mentioned. Not being able to control bodily movements when drunk, and consequently being likely to suffer accidents, was also cited as a health problem associated with alcohol. Respondents also recognised the high calorific value of alcohol and felt that body weight would increase and general levels of fitness would decline as a result of drinking it. A decline in mental functions, particularly a loss of concentration and inhibition, was also widely mentioned. When asked directly, most, but not all, respondents believed that there was a link between alcohol and heart disease.

Hindus and Sikhs were more mixed in their opinion of alcohol, with differences dividing largely between generations rather than by religion. Non-UK-born Hindus and Sikhs, including those with CHD, felt alcohol was generally bad for health, but it was not necessarily linked to an increased risk of heart disease, while their UK-born counterparts were less likely to feel that there was a link between alcohol consumption and poor health. South Asians, who were concerned about the health consequences of drinking alcohol, generally felt that any amount would be detrimental to health, but a small number, including some drinkers and those with CHD, felt that it was alcohol in excess that would cause a problem, with moderate amounts having little or no effect. White respondents generally felt that it was alcohol in excess that would be problematic, as this white male explains:

> The way to drink is in a medicinal form. Don't hit the bottle and keep going till it's empty. You can take a glass in the morning, another one with lunch and another one at night and that's it.

Indeed, few of those who drank alcohol felt its effects on health were as serious as smoking.

The one male Pakistani who reported drinking alcohol in this sample suggested that small amounts were advantageous to health and had a protective action. This belief was generally shared by those Indians and East African Asians who drank, who felt that a moderate

amount was good for physical health, both for its protective nature and as a stress reliever. In particular, red wine was cited by one white male and beer by one Indian female respondent as being particularly beneficial. She explains:

> I have read in a book that beer actually benefits people who have problems with their kidneys ... it makes the urine clear ... Not just beer ... In India we call it barley water ... if taken in measures of a gulp, not the whole bottle, then it is good for you.

Some types of alcohol, were considered to have particular nutritional properties, for example, the high levels of iron in Guinness, as pointed out by this UK-born Indian male:

> To an extent alcohol is good for you ... things like Guinness they produce iron, they are heavy in iron which is supposed to be very good for you to an extent, but again it's just a matter of knowing where the limits are.

For these respondents it was only excessive amounts of alcohol that were thought to cause problems, and then problems were felt to be particularly a result of its addictive nature. The nutritional value of alcohol was also mentioned by most white respondents. Indeed, some used it as a health supplement or tonic to help with particular medical complaints. Adverse effects were only mentioned in relation to excessive amounts of alcohol leading to intoxication. One white male, who regularly drank well over 20 units a week, did not believe alcohol intake increased the risk of heart disease:

> Well, I can't see it. I can't see how it affects your ticker because all it does is dehydrates you – alcohol. It doesn't do anything else.

Another, elderly, white respondent felt that the danger was not in the amount drunk, but what was drunk. He felt excessive amounts of 'spirits' increased the risks of heart disease, whereas large amounts of beer would not.

> It all depends on what you're drinking. Beer, no. Spirits, yes. It would interfere with your heart because the spirit makes your blood weaker. If your blood is a normal thickness, if you drink alcohol, it thins your blood down, so that means its rushing through your heart more, it's going through too quick and your heart can't keep up with it. It's pumping too quick. It's like mixing turps in thick paint to make it thinner. So that's what spirits does to the blood. So spirits can give you heart problems.

Health behaviours

As the section on health beliefs suggests, alcohol was certainly used and perceived by some as an important part of their nutritional intake. However, most drinkers had distinguishable patterns into which their drinking behaviour fell. For social drinkers alcohol was mainly consumed outside of the home in the company of others. Sometimes this may have been in the homes of others, but more usually it would take place in pubs or clubs. This was the most common pattern displayed among white respondents:

> Conversation. It's a social thing. I go there [the pub] more for the conversation, not the beer.

In fact, sociability came high on the list of reasons for drinking for white respondents. For many drinking was the central component of a social life and to reduce drinking would be to reduce their social life, as for this white male:

> Well if I cut down my social life's gone. I won't have no social life. If it wasn't for the pub and meeting my mates there every weekend, I don't know what I'd do.

In contrast, one white male would drink alone if unable to drink with his friends:

> If you're not drinking you feel lost. Some mornings I won't go up the pub, I just get out a can. If I'm not doing that I'm wandering about like a lost Israelite. You don't know what to do.

Some respondents drank only occasionally. Unlike more regular social drinkers, they typically drank alcohol only on special occasions, such as at weddings and funerals, rather than during all types of social activity.

The UK-born Hindus and Sikhs who drank alcohol were either social or occasional drinkers. However, for some of them, drinking had simply become part of a routine associated with work or higher education. Usually, this meant drinking on a regular daily or weekly basis. Regular drinking was considered to be acceptable and almost expected within certain professions for white respondents and for South Asian students. For South Asians and whites in employment it was also associated with winding down after work. To a lesser extent some respondents, whites and non-UK-born South Asians, drank alone in their own homes on a regular basis.

Although this study was not intended to uncover differences in patterns of drinking, two findings are worth reporting in this respect. First, of the three South Asian women who drank, all did so only outside of the home, with their family generally unaware. Second, within religious and ethnic groupings drinking seemed to be linked to social class, something also suggested by data from the *Fourth Survey* (Nazroo, 1997). Those with the highest levels of education appeared to be more likely to drink, or drank more than other members of their religious or ethnic group.

Reasons given for not drinking alcohol varied along religious, ethnic and gender lines. Health was the most popular reason given by white respondents for not drinking alcohol. This was mostly raised in the context of the use of regular medication that inhibited alcohol use. In contrast, health was rarely mentioned as a reason for not drinking by South Asian respondents, and when it was mentioned, health usually had different connotations for this group. Health was used in the preventive sense – South Asian respondents chose not to drink alcohol as they believed it would be detrimental to their future health rather than cause complications for their current health.

Religious prohibition was the most commonly given reason among Muslims for not drinking, while family expectations, linked to a cultural tradition against drinking alcohol, was the most commonly given reason among Hindus, regardless of age or generation. Family expectation was also cited by Muslims, especially female Muslims.

Structural reasons, such as cost or legal restrictions, were also given for not drinking alcohol, though mainly by white respondents. For example, some mentioned that the cost

of alcohol had restricted their drinking behaviour. Also drinking and driving laws were cited by a few South Asian male respondents as an influence on their drinking behaviour. One had completely given up alcohol after passing his driving test. Personal preference, such as disliking the taste or effects of alcohol, was the least commonly cited reason given by South Asian respondents.

Discussion

For South Asians interaction with alcohol was largely, but not wholly, defined by religion and culture. All but three of the Muslim respondents did not drink, because of its proscribed nature in Islam. Most Indian and East African Asian women who were not Muslims also did not drink alcohol, because it was not considered an appropriate form of behaviour for women. The three South Asian women that did drink, of whom two were Muslim, did so with their families unaware. This suggests that blanket assumptions should not be made about the relationships between religion, gender and alcohol consumption. Among South Asians we found that those with the highest levels of education were the most likely to drink alcohol, regardless of gender. On the whole they were also more likely to be UK-born members of their ethnic group.

Most respondents, who were not Muslims, did not feel that drinking alcohol would pose a danger to health unless it was done to excess. Excess was usually defined in terms of its immediate effect, i.e. intoxication rather than the number of units drunk. In fact, not one respondent spontaneously mentioned the recommended safe drinking limits, and there was certainly some confusion over what was and what was not excessive. The relative health benefits of alcohol consumption appear to have been picked up by a small number of respondents, with some white respondents and Hindu and Sikh men suggesting that certain types or amounts of alcohol were beneficial to health. However, their information or their interpretation of that information was often inconsistent. There is clearly a need for more targeted information as the understanding of general health education messages related to safe drinking levels were confused. However, given the general level of unacceptibility of alcohol consumption among South Asian women it may be difficult to target them within their own communities.

CHEWING OF PAAN AND OTHER SUBSTANCES

Paan consists of a paste, usually made of betel nuts and limestone, spread on a leaf, which is then chewed. It is often used after meals. Data from the *Fourth National Survey of Ethnic Minorities* (Nazroo, 1997) show that the use of paan was fairly common among Bangladeshi and African Asian respondents, with just over half of them having used it at some point with little gender variation. Among Indians, only a quarter of respondents had used paan, while among Pakistanis this was the case for only about one in eight respondents. Details are shown in Table 4.

Table 4. The use of paan among respondents to the Fourth National Survey of Ethnic Minorities (%)

	Indians	African Asians	Pakistanis	Bangladeshis
Ever used paan				
Men	24	61	15	51
Women	22	42	10	55
Total	23	52	13	53
Weighted base	*641*	*391*	*419*	*138*
Unweighted base	*636*	*349*	*582*	*289*

In this study information was sought on the extent to which South Asian respondents used paan, sopari, betel nut or any other chewing product. We also were particularly interested in the extent to which tobacco was added to any of these compounds. As with the other health behaviours examined, respondents were asked what they chewed, why this activity was carried out, whether they have ever tried to cut down or give up, and their relative success or failure at giving up. Those who did not use such products were questioned to find out whether they had ever used them and why they had given up. Respondents who had never chewed were asked why.

Among the 40 South Asians we spoke to half had used chewing products of one sort or another. Over a quarter had done so in the past with less than a quarter reporting they had never tried it.

Health beliefs

Bangladeshis in particular, but also some of the others who chewed, generally felt the use of chewing products that did not contain tobacco was beneficial to their health. Most commonly mentioned was that chewing betel nut and lime was an aid to digestion. In fact, adding lime to chewing products was considered to be healthy in a number of ways: it activated gastric juices, enhancing digestion of food, and, in addition, was used as a prophylactic for tape worm and a cure for hookworm. However, chewing a compound that included tobacco was invariably linked by these respondents to ill health and disease.

A number of Indian and African Asian respondents considered chewing to be a bad habit and generally something to be avoided. For these respondents health was an additional consideration in the decision not to try this activity in the first place, or at least not to add tobacco to chewing compounds. In terms of health, detrimental effects were particularly thought to result from the use of lime, which was considered to damage internal organs, cause cancer and possibly increase the risk of heart disease, as this non-UK-born African Asian explained:

> I have seen some people who eat a lot of paan, in the end their veins and arteries tear because of Chuna [lime] ... and then they go weak ... then blood escapes and they die.

This is a clear contrast to the health benefits attributed to lime by Bangladeshi respondents. Those Pakistani respondents who did not use chewing products suggested that this was out of personal preference or that it was not customary for them.

The discouragement of other family members towards the use of tobacco was a consideration for those respondents who felt that chewing per se did not increase the risk of negative health outcomes. One Pakistani male was warned by his father on the dangers of adding tobacco to his paan. Indeed, chewing with tobacco was often compared to smoking tobacco, both of which were felt to have serious health consequences. One respondent felt that chewing tobacco was worse than smoking it, because smoking tended to involve the use of a filter that blocked some of the harmful pathogens. The route of ingestion with chewing was considered to be more direct, and therefore more damaging. Chewing compounds that included tobacco was also perceived as addictive and in some cases likened to 'taking drugs'.

Health behaviours

Among those respondents who reported that they chewed, the most popular chewing substances were betel nut/quid and lime for Bangladeshis and paan and sweet zardia for Indians. Half of the Pakistani and most of the African Asian respondents in this sample did not use chewing products. The few that did practice this behaviour only did so once or twice a year and tended to use sweet paan and/or with, to a lesser extent, tulsi, sopari and lime. As a personal preference, none of these respondents interviewed here added tobacco to their chewing substances, mainly because it was not considered customary to chew with tobacco, rather than because of any perceived health risks. However, the Bangladeshi interviewer used for this study felt tobacco may already have been a part of some chewing compounds at the point of sale, and that respondents may have been unaware of this as an ingredient. Our findings here are in contrast to those found by Rudat (1994), who reported that the addition of tobacco to chewing products was common, particularly among Bangladeshi women.

None of those who used chewing products reported wanting to stop. None of those who had previously used chewing products reported difficulty in giving up.

Discussion

Many South Asian respondents choose not to use chewing compounds out of personal preference. Disliking the taste and/or appearance of the compound was a common reason. In addition, the associated spitting was viewed with disdain. Many also gave cultural explanations. This was particularly the case for East African Asians who suggested that this type of behaviour was not customary.

For the users of chewing products, any health risks were clearly associated with tobacco use. Only those compounds which contained tobacco were felt to pose a danger to health. The use of products such as paan and betel nut without the addition of tobacco was generally felt to be beneficial. Only those who did not use such products generally felt them to be detrimental to health.

There was clearly a need for health information on both the content and the effects of the use of a variety of chewing products.

PHYSICAL ACTIVITY

It is clear that physical activity protects against coronary heart disease, particularly in middle aged and elderly men (Morris, 1994). Indeed, research has shown that a reduction in coronary heart disease of as much as 50 per cent can be expected among men who regularly exercise, even among those in other high-risk groups, such as smokers. Indeed, experts in the field have called for a 'more active style of living' (Morris, 1994, p.812), with exercise becoming a social priority rather than a leisure choice. The benefits of vigorous physical activity are well recognised but there is now an international consensus that regular moderate intensity physical activity also confers health benefits. Moderate intensity physical activity is associated with lowered risk of coronary heart disease – especially for those who are sedentary or have low activity levels (Pate *et al.*, 1995). Examples of moderate activity are anything that leaves the individual warm and slightly out of breath, such as brisk walking, cycling, dancing, swimming as well as heavy housework and gardening. Hence regular moderate physical activity – that is participation in an activity for at least half an hour on at least five days a week – offers the potential of the greatest health gain for the majority of the population.

Respondents were asked whether they undertook any physical exercise. This could be part of a 'formal' fitness programme carried out specifically to get fit, or part of their work, if a physical job was done, or part of their daily activities, for instance walking rather than taking transport to local shops. Respondents were also asked why physical activity was or was not undertaken. Their motivations to do more exercise or obstacles that inhibited them were of particular interest. Respondents were also asked about their knowledge and beliefs about the relationship between physical exercise, health and heart disease.

Health beliefs

Many respondents felt that physical exercise would either maintain or improve their current state of health and protect them against future ill health. Physical exercise in conjunction with a healthy diet was considered the most powerful way of preventing illness by many South Asian respondents. A number of respondents, both South Asians and whites, spoke of the benefits to muscle tone and respiratory capacity of physical exercise. Exercise was also felt to offer some protection against certain diseases, including heart disease. Indeed some respondents felt it to have curative properties. Physical exercise was also linked with

weight loss, which for the overweight was felt to bestow immediate health benefits. Health beliefs surrounding physical exercise fell mainly into two areas: psychological and lifestage.

In addition to promoting physical health, physical exercise was also seen as having important psychological effects. Most respondents felt that any sort of physical activity was both enjoyable and beneficial to psychological health, making them 'feel good' and, in addition, it was seen as a useful way of dealing with stress, as this male Pakistani pointed out:

> When you are fitter you are mentally happier and you are less likely to get all these diseases.

As a consequence of physical exercise, it was believed that mental functioning would be generally enhanced, with improved alertness and reaction times.

Older white and South Asian respondents felt that the exercise they carried out was central to their continuing mobility. To a large extent there was a feeling that 'if you don't use it you lose it'. Older South Asian respondents were also more likely to believe that physical exercise could cure some types of disease, such as diabetes. However, some also suggested that physical exercise could be detrimental after a critical age, particularly for those with little previous record of taking exercise. It was felt that their bodies would be unable to cope with the exercise, either because of old age or because of intolerance, and serious harm could be caused. This was most commonly suggested by non-UK-born South Asians, older whites and those suffering from chronic health problems, including coronary heart disease. They felt that physical exercise was something that should be carried out by the young and that it might damage rather than enhance their current health.

Health behaviours

Across all groups, young university-educated men and women were the most likely to be taking some sort of formal physical exercise as part of a more general fitness programme. This was usually done outside of the home, involved the use of specialised facilities and often appeared to be linked to easy access to facilities in terms of distance and price. Young men, regardless of ethnic group, were more likely than young women to take their level of physical exercise seriously and for these young men it was often linked to a broader interest in a 'healthier lifestyle'. These respondents also described the social nature of physical exercise, saying it was a good way of meeting people and cementing group relationships. Because of this, those young male respondents who were not taking exercise wanted to do so and those who were already doing so wanted to do more.

Older respondents, regardless of their ethnic group, were the least likely to do any form of physical activity. In fact, many actively avoided any sort of physical exertion. This was often linked to their poor current health.

South Asian women with young children or household responsibilities usually considered child-care and housework in itself a valid form of physical exercise. This was sometimes used as a reason for not doing more organised forms of activity. However, there were differences between ethnic groups. Indian and East African Asian women were more likely

to be undertaking, or wanting to undertake, some form of physical exercise than their younger female Bangladeshi and Pakistani counterparts.

Some groups felt they were currently doing enough exercise. As mentioned earlier, this was mainly women with young children and older respondents in poor health. Women were also more likely to link physical exercise with weight loss. Those who did not feel themselves to be overweight felt less need to do any or more physical exercise.

Obstacles suggested by respondents as preventing or reducing their uptake of physical exercise varied by class and gender, as well as by ethnic group. These generally fell into structural, such as a lack of adequate facilities and the cost, or cultural or personal reasons, or a combination of these. Importantly, younger respondents, both male and female, felt cost to be a major inhibition in the use of local facilities.

Pakistani and Bangladeshi women suggested that the existence of women-only facilities was an important factor in influencing their exercise. Women-only facilities were also popular with both Indian and African Asian women. Women were also more likely to mention the proximity of facilities and their accessibility in terms of transport and opening times as a key factor in influencing their use of them. However, opening hours were also important to those in full-time employment. Linked to this, having no spare time was an issue both for women with child-care and household responsibilities, and those with work or educational obligations. Consequently, for some fitting in a commitment to physical exercise was not felt to be a priority, as this Bangladeshi woman with five children makes clear:

> I have to get up early in the morning to prepare my children for school. Washing, dressing, making their breakfast. My whole time is taken up with them. I have not got any time for exercise.

In addition, this woman clearly felt she was already doing more than enough physical exertion as a part of her daily routine as a mother. Rudat (1994) suggested a clear gender difference among those involved in 'health-enhancing activities' (which include sports and general physical activity). Our findings would suggest that class, in addition to gender, was dividing those who do from those who do not take any physical activity.

Living in the UK and adapting to a culture of privacy and isolation, and the custom of taking transport rather than walking, were also pointed out as reasons for not taking any physical exercise, as this quote from a Bangladeshi man illustrates:

> There is no exercise in this country. People stay in their house most of the time. They are confined within their house ... In this country if you want to go out, you go by bus ... in our country you can walk.

Two Indian men had been the victims of racial harassment when using local authority facilities. One faced direct verbal abuse at a local swimming pool. The other was made to feel unwelcome by other trainers in a fitness centre. Not surprisingly this had led to their restriction or avoidance of using community exercise facilities. It is not clear from the data we had available whether the fear of racial harassment or abuse restricted the use of such facilities by other respondents. However, one of our Indian interviewers suggested that one

of his female respondents had implied that she did not use the facility closest to her home because of fears of racial harassment.

As mentioned earlier, some South Asian respondents, usually, but not always, women, linked the need to carry out physical exercise with being overweight or unhealthy. Those that did not consider themselves to fall into either category had little motivation to take up any form of physical activity, for example one Bangladeshi man said:

> I feel it is good for my health, but I am not going to do it, because I am all right ... From my point of view, according to my health there is no need for me to do any exercise.

Discussion

Most white and South Asian respondents were not involved in formal fitness programmes, and many did little or no physical exercise outside of their daily living activities, with the exception of young university-educated men.

South Asian respondents often assumed that the physical activity they were currently doing, often as part of their work or their role in the family, would have a beneficial effect on their health. Many assumed that all and any type of physical activity would be protective against heart disease. There was little awareness of the difference in health benefits between moderate activity, for example, doing housework, and taking fairly strenuous physical exercise. Indeed, some South Asian women had linked the need to do exercise with being overweight. There was an inherent assumption that those who were not overweight were almost automatically healthy. Health education targeted at this group would need to redefine the relationship between weight and health and explain that exercise is for all, not just for those who are overweight. Those with coronary heart disease, although usually in regular contact with GPs and hospital services, were also generally unaware of the benefits of appropriate exercise. In fact, these respondents focused on the harm that even gentle exercise might cause.

Comments made by respondents demonstrate that gender and accessibility are key issues in their uptake of exercise facilities. Increasing levels of exercise may require the extension of women-only classes with child-care provision and classes being conducted over a wider area; in schools, community centres, or other easily accessible space, and not solely in gyms. In addition, issues concerning the racial harassment of users need to be addressed. Facilities will be underused if they do not provide a safe environment free from victimisation.

In addition, culture had to a more limited extent constrained the possibility of physical exercise. The effect of moving from a more active style of living to a more sedentary one was clearly highlighted by one respondent who felt it was less acceptable to walk in the UK.

DIET

Research has shown that the development of coronary heart disease is not dependent upon a single dietary factor in isolation, but on the whole dietary intake (Cullum, 1994). It is suggested that health education messages have been confusing and have oversimplified

important information (Hunt, 1994). For instance, the link between cholesterol and saturated fat, and the protective nature of unsaturated fat, is not straightforward. Saturated fats found in dairy products are the most harmful to coronary health. Monounsaturated fats are throught to generally reduce levels of cholesterol. However, government guidelines given in *The Health of the Nation* (Department of Health, 1991) call for an overall decrease in levels of fat in the nation's diet by both a change in diet and a change in the cooking process, which will result in a reduction in both beneficial and harmful fats. Government guidelines also recommend an increase in the levels of oily fish, beans, pulses, oats and vegetables.

Information on the links between diet and coronary heart disease is often perceived as confusing. The health education message has changed and grown more sophisticated over time. Some commentators have felt messages to be conflicting in nature and impractical (Hunt, 1994). Consumers are faced with daily dietary choices. It is clear that many may be aware that the avoidance of fat in their diet is key, but they are likely to be unaware of the different roles played by saturated and unsaturated fats.

The dietary intake of South Asians resident in the UK has been connected with both heart disease (McKeigue *et al.*, 1985) and non-insulin dependent diabetes mellitus (McKeigue, Shah and Marmot, 1991). Consequently, health campaigns have become increasingly focused on 'healthy eating' and the motivations behind food choices. To a large extent what is eaten by South Asians is dependent upon religious beliefs, staple foods from their country of origin and the availability of those foods in the UK (Sheikh and Thomas, 1994).

In terms of religious beliefs, Muslims are given instructions on diet by the Koran. Only animals with a cloven hoof can be eaten, and then only those that have been slaughtered in a particular way to make it 'halal'. The dietary habits of Hindus are largely dependent upon caste and region of origin. However, in general beef is not eaten, and often no meat or fish at all will be consumed. Ghee is widely used and highly prized by Hindus. It is considered a sign of wealth and is used in religious ceremonies such as weddings. Sikhs are given guidelines in the Guru Granth Sahib. Although not instructed to be so, they are often vegetarian.

In terms of region of family origin, those originating from Pakistan and North-West India – Punjabis – will tend to use wheat as their staple and will have a chapatti-based diet. Ghee is also widely used in cooking by Punjabis. Gujaratis, who would have traditionally used millet as a staple for chapattis, tend to use wheat instead in the UK. The staple food of the Bangladeshi community is rice, and they tend to have relatively large amounts of fish in their diets. For cooking purposes, they use oil rather than ghee. For a more detailed review of the diverse South Asian diets see Sheikh and Thomas (1994).

South Asian respondents were asked whether they ate a predominantly 'traditional' or 'western' diet. The meaning, for them, of traditional and western food was explored, including the extent to which either or both were considered 'healthy' and why. As a comparison, white respondents were asked about their diet and the extent to which they considered it healthy and why. Health beliefs concerning the importance, or the effect, of diet for all groups were of particular interest. Conceptually a number of South Asian respondents had difficulties with this line of inquiry. Questions on dietary intake tended to

elicit responses on slimming and losing weight, rather than information on the type of food usually eaten. This was particularly the case for non-UK-born or middle-aged respondents.

Health beliefs

Most South Asian respondents and some older white respondents were concerned about the effect of diet upon health. Frequently disapproved of substances were fat, salt and sugar. However, the consumption of hidden fats in pre-prepared processed foods and dairy products was rarely mentioned. No distinction was made between saturated and unsaturated fats. Also, South Asian women identified two groups who were able to eat a high fat diet without any detrimental effects: pregnant women and those who were currently underweight. The timing of meals was considered by a few Indian and Bangladeshi respondents almost as important as the content of the meals themselves.

Among South Asian respondents meat was invariably considered unhealthy. Sometimes this was determined by the type of meat. Red meat was more often considered to be unhealthy than white meat, and offal was considered to be healthier than lean meat. Most respondents assigned meat to this unhealthy status because of its perceived high fat content. For some Hindu and Muslim respondents, the issue was a religious as well as a nutritional one. All Muslims avoided eating pork and some would only eat halal meat. In contrast, white respondents, particularly older white respondents, felt meat to be an important component of a healthy diet. For some respondents this was linked to post-war health education in which 'proper' nutrition consisted of 'meat and two veg'.

Healthy foods cited by respondents usually included fruit, vegetables, fish and, to a lesser extent, milk and eggs. For example, one white male said:

> Anything in the vegetable line is very, very good for you.

On the whole, those South Asians who said they ate a traditional diet were more likely to feel that their diet was a healthy one. Older respondents in particular felt their diet was self-evidently healthy, as they were living proof. However, a small number of mainly non-UK-born South Asian respondents suggested the spicy nature of traditional food could be a cause of discomfort and ill-health, particularly in the area of digestion. For these respondents, bland, often boiled, foods were considered to be the healthiest choice. Those South Asian respondents eating a mixed traditional/western diet were more critical of their nutritional intake. Dissatisfaction centred upon the perceived level of fat in the diet, even when respondents considered their diet to be relatively low in fat. There was a perception that all fat was bad for health and that an ideal diet would contain virtually no fat at all. Bangladeshis felt their diet to be healthy because it contained lots of vegetables and fish, and was, they believed, low in fat. However, no reference was made by these respondents to the importance of the cooking process, such as grilling rather then frying. There was a general belief among South Asian respondents that ghee was unhealthy and that oil used in cooking, and in some cases any amount of oil, would be healthier than even the use of small amounts of ghee.

The link between diet and health was often perceived to be completely a weight issue, with an unsuitable diet linked to weight gain. It was this weight gain that was seen to damage health. Those overweight were considered automatically unhealthy and those not overweight were considered to be healthy. For Bangladeshi women the risk of heart disease was directly linked to being overweight, for example one said:

> Being overweight a person has got too much fat which ultimately covers their heart and the person then suffers a heart attack

The assumption was made that only overweight people could be at risk of heart disease. Becoming overweight was felt to decrease immunity to disease, slow down co-ordination and generally reduce mobility. In general, white respondents, including those with coronary heart disease, were more sceptical about the relationship between diet and health as this white male explains:

> I think if you enjoy a thing have it. Yoghurts, they're supposed to be fattening aren't they? Now I can't stop eating yoghurts, I love them.

As with other health-related behaviour they tended to feel that denial was as harmful as indulgence. There was some confusion and scepticism over current health messages regarding diet, as this quotation from a white respondent illustrates:

> If I listened to what they tell you about heart disease and all that I wouldn't be eating anything. Cornflakes or something stupid. They tell me not to eat dairy products. I eat cheese and I eat butter. So what! What would it be if you couldn't have butter on your bread. You might as well go to prison and have bread and water.

Many respondents considered that the ingestion of 'healthy food' was an antidote that would allow the body to expel harmful poisons. This 'antidote' analogy was a popular way of describing the importance or the effects of diet upon health by South Asian respondents. Food could be both a poison and an antidote. Good or healthy food was felt to have healing properties. Healthy food would expel poisons and rectify earlier damage done to the body.

Health behaviours

Among the four South Asian groups, we were given little definition of what a traditional diet consisted of over and above curries and chapattis. Indeed, it was the style of cooking rather than its content that defined it as traditional or western. Western food was always described in terms of junk or fast food – chips, burgers and pies were the most commonly mentioned fast foods. Dietary habits varied between ethnic groups, generation and gender. Within these clusters dietary choice was constrained by a variety of health, cultural and structural factors, such as cost or time available for cooking.

Non-UK-born Indians, African Asians and older Bangladeshis tended to eat a traditional diet. For Indians and African Asians this consisted mainly of a vegetarian diet, or predominantly vegetarian dishes with minimal amounts of meat. Bangladeshis suggested that fish was a major part of their diet. UK-born male and female Indians, African Asians and younger Bangladeshis tended to eat a combination of traditional and western food, a dietary

pattern that was often determined by the wider environment rather than personal preference. Those working or studying were more likely to eat such a mixed diet, because at home traditional food would be prepared and eaten, but outside of the home this type of food was not always available. Food provided by work or college canteens often tended not to reflect the multi-ethnic nature of their clientele. In contrast, regardless of generation and gender, Pakistani respondents tended to eat both traditional and western food. Most felt their diet to be 'healthy' and described it as lots of fruit and vegetables and minimal amounts of fat and sugar. There was a general recognition among Pakistanis that both traditional and western food could be healthy or unhealthy and that much depended upon how food was prepared and cooked.

Respondents were generally careful about their diet and, as the section on health beliefs and diet suggests, went to some lengths to reduce the amount of fat consumed. Attention was focused particularly on visible fat. Typically, white respondents spoke of removing the fat from bacon or chops and South Asian respondents spoke of reducing their overall meat intake or the use of oil instead of ghee when cooking. In fact, a number of female South Asian respondents suggested they had substituted the use of oil for ghee for health reasons.

Some of the respondents had changed their diet because of their ill health. A small number of respondents were on special diets, recommended by health professionals, to try and control health problems such as diabetes. However, those respondents with heart disease did not always appear to be making dietary choices in a straightforward way on the basis of their coronary health, as this comment by a white male shows:

> I used to love butter. I don't use butter now, I use margarine because it's unsaturated. And cheese, well, there's plenty of fat in that, but I love cheese. I still eat quite a bit of cheese.

This may have been linked to a more general cynicism over health education and to particular health beliefs – some white respondents were clearly not convinced that a healthy diet could help their existing health problems. In contrast, South Asian respondents appeared to put much more faith in the contribution of a healthy diet to good or ill health.

Interviewers felt that a minority of respondents were keen to change their diet to one perceived as being more 'healthy', but were unsure of how to proceed. There was some recognition of the use of ghee as problematic, but ghee was considered integral to the taste and the texture of traditional food and therefore very difficult, or impossible, to omit or replace. Among non-UK-born and older respondents there was some confusion in defining which components of their current diets were 'healthy' and which were not. One respondent felt rice to be the culprit and had cut down rice consumption and increased the amount of chapattis eaten. In contrast, another respondent had done exactly the opposite.

Women, regardless of ethnic group, were usually responsible for preparing the family's meals. The only exception to this was in the case of serious illness that incapacitated the wife's or mother's ability to do this. However, not all women were responsible for the purchase of food for the family. Among Bangladeshi families particularly food shopping was often carried out by men. In addition, where women were generally responsible for the purchase of food, their choices were often directed by family preference rather than health.

Cost, as a constraint on diet, was reported as a significant factor for older white respondents and for two respondents with heart disease. The cost of a more healthy diet was inhibiting for white respondents with heart disease, for example one said:

> Drink skimmed milk, plenty of fresh food and salads. That's what I try and do but I just can't afford it sometimes.

And another, when describing why she had been unable to choose a healthier diet, explained:

> There are one or two things that I'd like to get extra, like a big lump of boiled fish. It's so dear. Everything's so dear [but] that's what I should be eating actually.

A few Indian and Bangladeshi respondents also reported that personal finances had made it difficult to choose a healthy diet.

Not being able to increase the amount of fish in the diet was a typical example of cost preventing modification to this diet cited by white respondents. While Indian respondents said that cost prevented them from increasing the amount of fresh fruit and vegetables in the diet, particularly fruit and vegetables common to their country of origin or cultural heritage. One Bangladeshi respondent continued to use ghee because it was cheap, but would have rather made the transition to cooking oils. This is all consistent with previous research, which has suggested that lack of money restricts dietary choice (Griffiths *et al.*, 1994). However, in this sample some healthy as well as unhealthy choices had been made because of cost. For example, margarine was consumed by one respondent because it was generally cheaper than butter, rather than because it was healthier than butter.

For UK-born Indians and African Asians living away from their parents, either alone or with partners and children, the preparation time needed for traditional food was often an issue. Respondents reported that traditional food, in contrast to western food, took significant lengths of time both to prepare and cook and this often increased the western component of their diets. For example, one said:

> It's just the cooking of it, it's difficult for me getting it [traditional food] prepared when you have prepared food, like confectionary and chocolates, it's all there, so I can't be bothered to make [traditional] food.

This was also an issue for UK-born male respondents and younger white respondents, who both felt that preparation time posed a significant problem. Healthy food was considered to take longer to prepare than convenience or 'junk' food, which was always seen as less time-consuming to find, prepare and eat. Nearly all respondents who ate fast or 'junk' food wanted to cut down on their consumption of it, but they felt they did not have the time to make healthier choices. A few respondents attempted to counteract the perceived lack of nutritional value in fast food with the use of vitamin supplements, or by ensuring that some fresh vegetables were added to their meals. Previous research has also indicated that time is a key factor in healthy eating choices (Griffiths *et al.*, 1994).

Discussion

Respondents were, on the whole, aware of the dietary factors that contributed to coronary heart disease and nearly all wanted to reduce their overall level of fat intake. In fact, nearly all those with coronary heart disease had changed their diet or had thought about changing their diet. However, there was little recognition of the differences between saturated and unsaturated fats. Indeed, the protective nature of monosaturated fats was unknown with only one respondent aware of the essential nature of some fats in the diet. Further information on dietary intake might usefully be focused on South Asian women as it is they who are usually responsible for purchasing and cooking food, although among Bangladeshis it is common for husbands and fathers to buy the family's food. Also, women from all groups bought and cooked what their families liked to eat, so health education would need to encompass men of all ethnic groups.

The motivation to make dietary changes was often tempered by respondents abilities to make changes. The use of ghee or large amounts of oil in the cooking of traditional South Asian foods was common and considered integral to the taste and texture of such foods. However, cookery lessons, both within secondary schools to pupils and within the community, might be a useful way of imparting the necessary skills to cook lower-fat versions of traditional dishes. Recent feedback from mobile health projects currently operating within South Asian communities has been encouraging (Beishon, 1995). Some work in this area has also been done for the general population within schools with the setting up of 'Get Cooking!' clubs (Hobbs, 1995). These might usefully be developed to cover traditional South Asian foods. In addition healthy cooking skills could show participants that healthy food need not necessarily mean expensive food.

In fact, cost was perceived as a major factor in making healthy choices. The desire to eat more fruit, vegetables and fish was tempered by the additional cost that such purchases would have incurred. Fruit, vegetables and fish imported from the Indian sub-continent and Africa are more expensive than home grown varieties. The setting up and support of Asian food co-operatives for those on a low income could provide cheaper healthy foods of the type used by these groups. The Health Education Authority has funded many similar projects (Mill, 1993) and should be well placed to extend and develop this work among South Asian communities.

4. Negotiating and understanding personal risk of heart disease

Chapter 3 outlined both health beliefs and health behaviours in relation to a number of risk factors for both heart disease and ill health generally. In addition to asking about health beliefs and behaviours, respondents were asked about the extent to which they felt personally susceptible to heart disease. Those who 'looked after themselves' or felt 'in control' of their health generally felt their personal vulnerability to ill health to be low, as did those who did not practise behaviours either risky or beneficial to health. Those who practised some risky behaviours generally felt their chance of suffering from heart disease to be average.

On the whole respondents who identified certain risk factors for heart disease were less likely to practise such behaviour and more likely to engage in preventive behaviour, such as physical exercise (although not all were careful about their diet). That is, their behaviour was often congruent with their beliefs. However, it is clear from Chapter 3 that there were a number of instances where health beliefs and behaviours were incongruent. This chapter is concerned with exploring the reasons that respondents gave for the gap between their beliefs and behaviours.

The reasons for such incongruence were based on one or more of the following lines of reasoning: that the respondent felt that he or she was not personally at risk from participating in risky behaviour, although others are; that he or she had outweighed the negative risk by taking positive action to improve his/her health; that the benefits of the risky behaviour outweighed the costs for the respondent; and that ill health was outside the respondent's control so there was no point in practising healthy behaviours. Each of these will be discussed in turn, but it is worth pointing out that there is some overlap between them and that many respondents used a combination of these explanations to describe their understanding of health risks. Also, some respondents who did carry out behaviours that they perceived as risky to health, gave no explanation for their feelings of optimism about their own health, with their feeling of perceived vulnerability often bearing little relationship to their general health beliefs.

LIMITING PERSONAL RISK AND SENSE OF PERSONAL INVULNERABILITY

A number of approaches were used by those who engaged in behaviours dangerous to their health to explain why behaviour they had previously described as risky to health, in general or for others, was not risky or dangerous for their own health. This was particularly the case for Bangladeshi and Pakistani respondents who smoked and used chewing products (although none of those who chewed added tobacco). One explanation for the lack of personal risk was that the respondent believed that he or she did not carry out the risky behaviour 'to excess'. Respondents believed that the level of risk grew in proportion to the extent the behaviour was practised, so behaviour done 'to excess' would increase the risk of ill health whereas, subjectively assessed, minimal or acceptable amounts would not create a problem. For instance, one Bangladeshi smoker, who recognised the link between heart disease and smoking, suggested that smoking ten cigarettes a day would not increase his personal risk, because at that level the effect was minimal if there was any at all. In fact, this smoker appeared to believe that smoking ten cigarettes a day was actually good for his health.

> Some doctors say [smoking] is alright for my body, so I can smoke and I should maintain my limit and smoke ten cigarettes a day, not more than that; it's good for my health according to some doctors. Cigarettes can cure some diseases.

According to this line of reasoning, health risks associated with smoking were directly linked to the amount smoked and only occurred when smoking in excess. Consequently, it could and was used to explain why respondents had chosen not to cut down or give up health-damaging behaviours. Respondents believed their behaviour was not practised often enough for it to be detrimental to health and, as such, there was no need to try and cut down or give up. However, the boundary between moderate and excessive behaviour was rarely specified, apart from the suggestion that it was always more than the amount respondents were currently doing. For example, in the case of one non-UK-born male Pakistani smoker excess was more than 25 cigarettes a day.

The excess approach was also used by those who believed that chewing betel nut and lime was bad for health, but continued to do so. Although chewing could be detrimental to health, this was not the case personally as not enough was chewed for it to be a problem.

Indian and East-African Asian and white respondents also widely used the excess explanation, but they were more likely to apply it to alcohol use. According to many of those who drank alcohol and believed it could damage health, 'in moderation' alcohol was beneficial to health and could have curative properties. It was only excessive use of alcohol that was believed to increase the risk of ill health and heart disease, as this respondent describes:

> In moderation it's [alcohol] good for health in small amounts, it helps the heart, but if you go over the limit then the effect is reversed.

In addition to the notion of risk only occurring when the behaviour was practised to excess, some respondents felt that risk of heart disease and other forms of ill health was dependent

upon the individual's level of personal vulnerability, despite the apparent importance of certain behaviours to health. For example, a small number of non-UK-born Bangladeshi respondents did not feel that smoking would *necessarily* harm their health as health was also determined by individual susceptibility, which was linked to fate or God's will (see 'Uncontrollable risk' below). This led respondents to be less likely to believe that their own health was at risk because of their cigarette smoking. Proof for this line of reasoning was offered through stories of heavy smokers who never experienced any ill health, as compared with non-smokers who had contracted lung cancer. For example, one Bangladeshi smoker said:

> Some people can tolerate smoking, others not. It has been found that some people can smoke for a long time without any effect, but other people, who have never smoked suffer from [smoking-related] diseases.

This explanation was particularly popular with older Bangladeshis who smoked heavily and did little physical exercise.

In contrast, for younger respondents personal invulnerability was often felt to increase with age, as this UK-born Asian woman explained:

> You think that it [heart disease] probably won't bother me, you know, I'm still young

Generally among the respondents there was a belief that increasing age, defined as ranging from 30 to over 80, was associated with declining health and a restriction of activities. This perception had an impact on the translation of health beliefs to health behaviours in two contradictory ways. First, older respondents were likely to associate increasing age with an inevitable decline in health and decreased heart efficiency. This was then associated with a decline in the range of preventive behaviours that it was worth respondents participating in, or that they were able to participate in. Second, increasing age was, in contrast, seen as a reason for being particularly careful about health behaviours. For example, one non-UK-born Indian respondent used age as a critical dividing line before which certain risky behaviours could be practised with little or no adverse affects. However, after this chronological point the same behaviour was a direct cause of ill health:

> I have this idea that once you pass the age of 30 there are certain things that you can't do and smoking is one of them.

A few Muslim respondents, mainly Bangladeshi, and one elderly white respondent, linked their perception of a person's vulnerability to ill health to his/her state of mind. Cheerful, happy people were considered to be less at risk than those who were always looking for problems. Happy people did not experience stress as they found problems, and life in general, easier to deal with. What went on in the mind was felt to have a direct effect on physical health. One male UK-born Indian respondent used this explanation to describe the relationship between being overweight and ill health. That is to say it was not the excessive weight in itself that was a cause of illness, but how that person felt about being overweight. Stress was also mentioned as a factor related to heart disease in a number of accounts. For example, one white woman with coronary heart disease explained:

> Well I've lived a very active life and I think stress can cause it and I suppose it could be pressure, rushing about, always in a hurry, I think that's what causes it mostly.

BALANCING RISK

The explanations used by respondents for ill health or heart disease were often multi-factorial. That is to say, they believed that in isolation a single risk behaviour would not be enough to increase their overall risk of heart disease, but a number of risk behaviours in combination with each other could tip the balance. For instance, one non-UK-born African Asian woman felt her risk of heart disease to be increased because she smoked, *and* drank alcohol, *and* did no physical exercise *and* felt she was overweight. Another respondent, highly educated, with medical training felt his risk to be high because of his ethnic group, because heart disease ran in his family and, in addition, he did little in the way of preventive behaviours.

Some UK-born South Asian respondents and one white respondent used this multi-factorial risk approach to explain their participation in behaviours dangerous to health. They felt that some damaging behaviours could be cancelled out or traded-off by the practice of some healthy or preventive behaviours. For instance, one male Bangladeshi smoker felt his own vulnerability to heart disease was below average because he was careful about the level of fat in his diet and because he took regular physical exercise:

> I would say I have not got that much chance [of heart disease] because I am careful about my diet and I play football for exercise purposes

Similarly, some younger South Asian respondents believed that the negative effects of an unsuitable diet could be counteracted with the use of physical exercise. As such, emphasis was not on what was eaten but on the amount of physical activity a person took. For example, an African Asian male respondent described how he felt that a high-fat diet was not detrimental to health as long as some physical exercise was done:

> I believe that you should be able to eat what you like, as long as you are doing some physical exercise.

Here the explanation did not so much depend on the multi-factorial nature of the aetiology of heart disease as on negative effects being outweighed by positive ones, and these respondents often took a much broader interest in health issues outside of their own health status. The notion of negative effects being counteracted by positive effects was used in other ways beyond the straightforward link between diet and exercise. For example, one Bangladeshi respondent said of the risks of smoking:

> The poison inside the cigarette goes in your body and stays there. If you eat healthy food, you can get rid of this poison. If you don't then it will affect you.

Indeed, some male Bangladeshi smokers and a minority of white non-smokers felt that it was possible to counteract the negative affects of smoking with the use of either diet or physical exercise.

These respondents viewed their health as comprising a series of separate but inter-dependent factors. Thus practising two negative health behaviours, for example smoking and a high fat diet, was perceived as worse for their health than the practice of three dangerous health behaviours and one positive health behaviour, for example smoking, a high fat diet, drinking, but taking some physical exercise.

Just as personal vulnerability was seen as dependent on age, to a certain extent this view of rectifying the damaging effects of smoking was also seen as dependent upon age. Respondents felt that younger people were more likely to be able to counteract the damaging effects of smoking, with the ability to trade-off declining with increasing age. In fact one male UK-born Indian respondent felt that the body was only able to carry out this regeneration process while it was young.

BENEFIT AND RISK

The notion of balancing risks, just described, was sometimes linked to the idea of excess, described in the section on personal vulnerability, to explain how the benefits of certain behaviours could outweigh their associated health risks. This explanatory approach tended to be used by younger, male and educated South Asian respondents who believed that the consumption of 'unhealthy' food is only detrimental to health at the point at which its benefits and risks become unbalanced. For instance, some believed that a certain amount of saturated fats is necessary for bodily functions and not consuming enough fat could cause as many problems as consuming too much. What is of crucial importance according to this line of reasoning is the balance between the two. Indeed, in relation to food it was felt that 'a little of what you fancy does you good'. This philosophy was often also extended to the use of cigarettes and alcohol (see the examples under 'Limiting personal risk and sense of personal invulnerability' and sometimes covered 'large' rather then little amounts.

Some Bangladeshi and African Asian respondents went further than this. They felt that behaviour generally linked to ill health would not be a cause of ill health for them and, in fact, the opposite was the case. This was because they saw themselves as using such behaviour as a coping strategy to allow themselves to deal with stress, which included both interpersonal and environmental problems and difficulties. Smoking was the most commonly used behaviour in this context as it was felt to have a calming effect on respondents, as this male African Asian explained:

> I guess I enjoy the feeling of calmness and relaxation, especially if I am in a bad temper; after smoking I feel calmer.

So effective were these behaviours in fulfilling their stress-relieving role that failed attempts to give up or cut down on smoking by Bangladeshi respondents were attributed to this. Consequently, the risks attributed to smoking were outweighed by the perceived benefits of continued use and/or the difficulty of giving up.

One male non-UK-born Bangladeshi respondent used a similar analogy to illustrate how a health-promoting activity, physical exercise, could also be used to relieve stress:

> If I do physical exercise or swimming I can sleep properly, without swimming I can't sleep and then different types of stress and anxiety come into my mind and wake me up.

In contrast to this, the benefits of some health-promoting behaviours were not always clear cut. For example, older white and Bangladeshi respondents, and one UK-born Indian respondent believed that doing, rather than not doing, physical exercise could be a cause of ill health for the unfit and the elderly.

UNCONTROLLABLE RISK

Despite their widespread knowledge of the relationship between certain behaviours and poor health, respondents did not feel that they could minimise all of their health risks. For example, one Indian man with medical training made the point that prevention was limited in certain ways because biological factors in the aetiology of heart disease, in the form of family history and ethnic group, were unavoidable:

> Well [there are] multifactorial causes; family history, racial background that are known to be linked to the development of heart disease; then there are other factors like lifestyle and stress.

The environment was widely used by white respondents as an example of a health-damaging effect that was out of their control. Levels of pollution, particularly car exhaust fumes were felt to be a particular risk for general levels of ill health, although few respondents mentioned environmental factors in the aetiology of heart disease. One Bangladeshi woman felt that risk of heart disease was linked to living in a high rise flat where she was a prisoner and unable to go out unaided.

Older Bangladeshi and non-UK-born Pakistani and Indian respondents were less likely than others to feel they had any control over their health and, consequently, that health behaviours were important. They believed that health was conferred by God in the main, although doctors were also felt to govern health in a more limited way. Not surprisingly, these respondents were more likely to engage in health-damaging behaviours, such as smoking, and were less likely to engage in preventive behaviours, such as physical exercise. For example, one Bangladeshi respondent when asked about any link between physical exercise and heart disease said:

> You don't have to do exercise if Allah is helpful.

As mentioned earlier, diet was considered to be the most powerful influence on health by many South Asian respondents, who associated a diet high in fats with an increased risk of heart disease. However, in this context a small number of non-UK-born South Asian respondents felt that an unhealthy diet alone would not always be enough to be a cause of ill health. It was fate or 'God's will' in conjunction with an unsuitable diet that would ultimately lead to health problems.

Respondents with such beliefs generally did not feel in control of their health and felt unable to do much to enhance their current health status. However, some did engage in health-

promoting behaviours. They were 'hedging their bets' by participating in some preventive behaviour while still feeling that their health was almost completely in the hands of God.

DISCUSSION

Four systems of beliefs were identified from the accounts given to us by respondents. Broadly speaking they related to a sense of personal vulnerability, balancing risks, judging relative benefits and risks, and uncontrollable risks. They were not mutually exclusive and respondents often used one or more depending upon the situation they were asked to explain. Using balance as a model, respondents spoke of 'excess' involvement in behaviours likely to damage health and the way in which less than excess involvement was unlikely to affect their health. Health was also viewed as a system of equilibrium, too little could be as damaging as too much. In addition, the benefit of what we have termed risky behaviour was sometimes perceived as outweighing any possible health risks. Furthermore, preventive health behaviours were felt to negate any possible detrimental effects on health that practising risky behaviours might lead to. Both balancing risk and judging relative benefits and risks depend on the individual believing she or he had some control over his or her health. In contrast, uncontrollable risk suggests that health is not the responsibility of the individual. Health, or the lack of it is placed within the realm of God, fate, biology or the wider environment. Issues relating to a sense of personal vulnerability to disease cut across these models.

5. Conclusion

Most groups appeared well informed on the factors related to cardiovascular health. Indeed, for South Asians access to information was largely a function of good English language skills. We found few differences between ethnic groups, in fact, the largest differences were between genders and generations. Women on the whole had less access to health-related information and were less well informed than men, and this was particularly the case for Bangladeshi women. This also applied to non-UK-born members of South Asian groups, who were often less aware of health promotion and less knowledgeable than UK-born members of those groups. Interestingly, a similar pattern was displayed in the accounts given to us by white respondents with older respondents less knowledgeable than the younger ones.

Overall, South Asian women, particularly non-UK-born Bangladeshi women, seemed to be most in need of more information. Targeting information at these women may prove to be complex as they often had limited English language skills, were often not literate, and rarely went to community centres or mosques. However, it is important to involve these women in health promotion as they could be a catalyst for family as well as individual health behaviour change.

Among the South Asian respondents, health information, or perceived susceptibility to poor health, was referred to less often than culture and religion as a reason for participating or not participating in behaviours related to health. In contrast, for whites health information was the key reason given for participating or not participating in health behaviours. However, social and environmental reasons were also high on their list. Whites with coronary heart disease were often unconvinced of the benefits of giving up smoking, and both whites and South Asians with coronary heart disease were often unconvinced or unaware of the benefits of taking appropriate exercise. Structural factors, such as cost, time and accessibility were also of importance in the accounts given to us by both South Asians and whites.

Not surprisingly, none of the accounts of the divergence between health beliefs and behaviours given to us could be neatly fitted into any of the psychological health models discussed earlier. For instance, with regards to the health belief model (HBM) we did not always find that smokers perceptions of susceptibility to smoking-related disorders had an effect on their intention to give up. In fact, even those smokers who were not convinced of the health risks wanted to cut down or give up smoking completely. In applying the HBM, accounts given to us suggest that perceived barriers to change far outweighed perceived benefits for all of the health behaviours under investigation in this report. Giving up smoking in particular was linked with emotional and social difficulties that were perceived to be greater than any long-term health benefits.

In general we did not find that the health locus of control model (HLOC) could be used to explain the themes used by respondents. We did not always find high levels of preventive health behaviour among those with high internal locus of controls. In fact, subjective feelings of being in control appeared to be more often given in the accounts of those who appeared less likely to consider behaviour change. In contrast, those respondents who felt their health was purely one of luck or God's will, that is to say those with a high chance locus of control, were more likely to engage in health-promoting behaviours than those with a high internal locus of control. This appeared to be a result of respondents' having multi-dimensional and conflicting beliefs about their control over health, something that may not have been uncovered with the traditional structured questionnaires used to measure HLOC.

Self-efficacy was an important consideration for smokers. They often had little confidence in their ability to stop smoking and to stay a non-smoker. This lack of confidence was used in their accounts as a reason for not attempting to give up in the first place. Developing confidence in the ability to change health-related behaviour and stick with it may be an area for development with smokers.

The health action model takes into account the cultural influences and structural factors that shape health behaviour, as well as personal health beliefs. From the accounts given to us by respondents, all three of these factors were of some, but not equal, importance in determining health behaviour. This model might usefully be developed to examine the hierarchy of influences, or the ways in which influences interact, on how individuals manage and change health behaviour.

All four psychological models of health behaviour appeared simplistic when we tried to apply them to the dynamics of health behaviour change among our respondents. None could encompass the richness and variety of influences that affected their health behaviours; and none could cope with the variability and often situation-specific nature of certain health behaviours. All except the health action model assume that health behaviour is solely the responsibility of the individual and purely within the control of the individual. This clearly was not the case in the accounts given to us.

Indeed, the systems of beliefs identified from the accounts given to us by respondents could not be understood within any of the health belief models we have tried to use. These systems of beliefs, which related to a sense of personal vulnerability, balancing risks, judging relative benefits and risks, and uncontrollable risks, seemed to be the ways in which both white and South Asian respondents understood health and illness. In addition, they were not mutually exclusive. Indeed, individuals used the whole range of beliefs in different situations. We found little difference between ethnic groups in the models they chose to use. In fact, the biggest differences were found between generations, with older respondents more often linking their health to factors outside of their control than younger respondents.

This report has also highlighted some of the gaps that currently exist in health education and promotion for South Asians. In particular, not only do clearer messages need to be given, these messages must be targeted at the specific sections of these communities who are most in need of it. South Asian women, particularly non-UK-born Muslim women and Bangladeshi women in general, appear to be both most in need of more information on heart disease and to have the most difficulty in obtaining it. This may have implications not only

for their own health, but also for the health of members of their families. Indeed, these women could encourage and motivate health behaviour change among partners and children as well as the wider family network. However, as indicated in Chapter 2 'Sources of health information', this group of women may be difficult to access. Their limited English language skills and their poor literacy in their first language suggests that written material would not be an effective form of health promotion. Radio programmes in community languages or the use of health advocates within these communities might prove to be a more efficient channel. Alternatively health education could be channelled through children and men. Information brought home from school by children appeared to be an important source of knowledge for women and this route could be expanded, either by deliberately targeting children in this way or by encouraging parents to attend health promotion functions held at schools. In addition, community centres and places of worship could be used to get relevant information to Muslim men. These men could be encouraged to take this information home and discuss it with partners and other family members.

In general those practising risky behaviours, such as smokers, need to be empowered with the skills that might enable them to give up. Indeed, more use could be made of family and community distaste for such behaviours to discourage individuals from starting or to encourage them to give up. Those not practising preventive health behaviours, such as physical exercise, need to be motivated and supported in any attempts to do so, for example, with the use of health advocates trained to offer women-only sports or exercise facilities within local community centres and school halls. This could also mean reducing the cost of using such facilities and offering on-site child care.

In addition, South Asian families could be encouraged to adapt traditional recipes with high-fat contents into lower-fat versions, something that they appear to want to do. In schools South Asian children could be taught how to make healthy food that could be more easily fitted into a busy lifestyle. Indeed, this skill might be of use to all young people, not only those with South Asian origins. Dietary health education also needs to get across the message that healthy need not mean expensive. Clearer guidelines also need to be communicated on safe drinking limits and the risks (if there are any) associated with the use of chewing substances.

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