A pilot study of cardiovascular risk assessment in Afro-Caribbean patients attending an inner city general practice

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**Background.** Afro-Caribbean ethnic minorities are at high risk of stroke and the sequelae of hypertension.

**Objective.** To investigate cardiovascular risk factors and Dundee risk rank in Afro-Caribbeans attending one inner city general practice and to find which methods of health promotion patients preferred.

**Methods.** We assessed cardiovascular risk including systolic and diastolic blood pressure in 98 patients of Afro-Caribbean origin.

**Results.** Fifty per cent of the patients had at least two risk factors for cardiovascular disease. Focus groups suggested that the barriers to effective health promotion included lack of risk awareness, cultural and lifestyle influences, time restrictions and language difficulties.

**Conclusions.** The small pilot study highlights both the need for and some of the problems of GP-based cardiovascular health promotion in Afro-Caribbeans.

**Keywords.** Afro-Caribbean, cardiovascular risk, health promotion.

Introduction

Afro-Caribbeans are at increased risk of cardiovascular disease.\(^1,2\) Compared with Europeans, Afro-Caribbeans are at greater risk of stroke and tend to experience greater cardiovascular and renal damage at any level of blood pressure. This is reflected in higher rates of morbidity and mortality from strokes and renal failure.\(^2\) In one study in London, hypertensive patients of Afro-Caribbean ethnicity were found to be less likely to use anti-hypertensive medication than European patients.\(^3\)

However, little research has been conducted on cardiovascular health promotion in Afro-Caribbeans in UK general practices. It has been suggested that the primary care team may play a key role in documenting risk status. For example, a system of pro-active invitation has been shown to be related to the recording of cardiovascular risk factors in medical records in general practice.\(^4\)

The aims of this study were: (i) to investigate cardiovascular risk factors and Dundee risk rank in Afro-Caribbeans attending one inner city general practice; and (ii) to use focus groups to investigate which methods of health promotion patients preferred.

**Methods**

**Subjects**

Between September 1996 and September 1997, consecutive adult attendees of Afro-Caribbean origin presenting at two non-emergency booked sessions weekly at one inner city general practice for any reason were invited by M Molokhia to take part in a study of cardiovascular health promotion. Participants were assessed for cardiovascular risk factors by structured interview, clinical examination and, where possible, blood sampling. Participants were also invited to focus groups to explore knowledge, attitudes, willingness to participate and preferred methods of health promotion.

**Risk factors**

Risk factors were defined as hypertension (sustained diastolic BP ≥95 mmHg, or systolic BP ≥160 mmHg),
smoking, body mass index (BMI) >25 kg/m², serum fasting cholesterol >5.8 mmol/l, alcohol consumption >21 units week men, >14 units week women, exercise level 0 or 1 (i.e. no or mild exercise per week), and medical or family history of ischaemic heart disease, diabetes mellitus, stroke or peripheral vascular disease.

Dundee risk ranks (based on age, sex, smoking history, diastolic blood pressure and cholesterol, where available) were calculated using the Tunstall–Pedoe coronary risk disc, with 1 being the highest risk and 100 the lowest.

Results

Response rates
Ninety-eight patients were recruited from a total of 107 asked to participate (response rate 92%). Six patients declined (too busy n = 1, social problems n = 1, not interested n = 2 and pregnant n = 2). Three patients were excluded from the study due to psychiatric illness. The mean age was 41 years (range 15–79 years). Thirty-four patients were males (mean age 42 years) and 64 were females (mean age 41 years).

Cardiovascular risk factors (see Table 1)
Sixty-seven per cent of patients had at least one risk factor for coronary heart disease, and 50% patients had >2 risk factors. Women were less likely than men to be smokers but more likely to take little or no exercise. Mean Dundee risk ranks were 69 in women and 73 in men. The mean Dundee rank was 70 for both sexes combined.

Focus groups
Ten patients (9%) agreed to attend three focus groups. Interventions were discussed to encourage smoking cessation, diet and weight modification and increase levels of exercise. Options included health promotion clinics, opportunistic health promotion during GP surgery, personal health records, audio-visual and leaflet support. The idea of GP- and nurse-run health promotion clinics received positive support. Health promotion videos were preferred to be shown in the surgery. Diet and exercise were the main areas of interest. Barriers to health promotion included lack of risk awareness, time restrictions, especially in women with children, and language difficulties.

Discussion
Cardiovascular health promotion is most cost effective in those at greatest risk.5 As in previous studies of Afro-Caribbeans, half of the sample had two or more cardiovascular risk factors.1 Limitations to this pilot study are the small numbers of patients, since only one part-time GP was recruiting and that recruitment was opportunistic during surgery and only included GP attenders. However, this reflects much health promotion activity in general practice. In this study, patients attending the emergency clinic were not included due to time constraints. Other studies have found that females and patients who visited the GP more frequently and those who indicated a willingness to change behaviour were more likely than the rest to respond to a postal invitation to attend a health check.6

Uptake of GP-based health promotion in groups of high cardiovascular risk is often low, as illustrated by the small numbers who attended the focus groups. Although these focus groups may not have been representative, we found interest was stronger regarding diet and exercise than for other risk factors such as alcohol and smoking. This may reflect lack of perceived or actual risk, or cultural and lifestyle influences, all of which may act as barriers to effective health promotion.

In conclusion, this small pilot study highlights both the need for and some of the problems of GP-based cardiovascular health promotion in Afro-Caribbeans. We hope that the results may inform future interventions in this high risk but neglected group.

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References


