

care services. If this is the case, then our relative risks between periodontal disease and admission to hospital for coronary heart disease may underestimate the true risk.

The biological mechanism by which periodontal disease or poor oral hygiene could lead to coronary heart disease is not clearly established. The bacteria which cause periodontitis have been proposed as possible causative agents.¹ Recent epidemiological studies have found that people with evidence of infection by *Chlamydia pneumoniae* have an increased risk of coronary heart disease.^{15 16} The possibility that other bacteria, including those commonly associated with periodontal disease, may cause coronary heart disease is currently only theoretical.^{1 17 18}

In conclusion, we found an association of coronary heart disease with periodontal disease and other measures of dental disease. Overall, the associations were weak, although not so weak in young men as to be dismissed as unimportant. Perhaps our most noteworthy finding, however, is that periodontal disease and poor oral hygiene are stronger indicators of risk of total mortality than of coronary heart disease. Oral health may be a more general indicator of personal hygiene and health care practices, including access to and use of health care services.

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Racial discrimination against doctors from ethnic minorities

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A retrospective study of 1500 doctors graduating from five British medical schools between 1981 and 1987 suggested that those from ethnic minorities experienced disproportionate difficulty in obtaining hospital posts.¹ A report published by the Commission for Racial Equality in 1987 also suggested that British trained doctors from ethnic minorities had trouble in getting the best jobs.² Definitive evidence of discrimination, however, may be obtained only from a prospective study.

Subjects, methods, and results

A pilot study was carried out to test the hypothesis that British trained doctors with foreign sounding names were less likely to be shortlisted. We developed a curriculum vitae (CV) for six equivalent applicants—three with Asian names and three with English names. All applicants were male, the same age, and educated and trained in Britain, with a similar length of experience in district general or teaching hospitals. All were at the same stage of their career, applying for their first senior house officer post in a non-teaching hospital because applications to teaching hospitals usually require completion of a form. Each CV was tailored to a particular post by including a short paragraph explaining why the candidate was applying for the job. The medical school and secondary education were randomly changed so that shortlisting was not

influenced by attendance at a particular school or university. The pairs of names used for each application were randomly selected from the panel of three Asian and English applicants. The comparability of the CVs was confirmed by two consultants who were unaware of the purpose of the research and were asked to rate the CVs after the names had been removed.

Matched pairs of applications were sent for each post—one with an English name and one with an Asian name. The main outcome measure was the difference in the applicants' frequency of being shortlisted. When applicants were shortlisted we immediately cancelled any interviews.

We sent 46 applications for 23 advertised posts in otolaryngology, paediatric medicine, general surgery, psychiatry, and geriatric medicine. Eighteen applicants were shortlisted, of whom 12 had English and six Asian names (11 English and 17 Asian applicants were not shortlisted). In one post the English applicant was shortlisted and was subsequently withdrawn—after which the Asian applicant was shortlisted. This was included as a positive outcome for the English applicant.

The table shows the number of pairs where neither

Outcome of applications (pairs of English and Asian applicants shortlisted)

		English applicants shortlisted		
		Yes	No	Total
Ethnic minority applicants shortlisted	Yes	6	0	6
	No	6	11	17
Total		12	11	23

McNemar's test for matched pairs: $\chi^2 = 4.17$, $p = 0.03$, $df = 1$ (with continuity correction).

candidate was selected, where only the English candidate was selected, and where both were selected. The Asian candidate was never shortlisted unless the English candidate was also shortlisted. The outcome was different in six pairs ($\chi^2=4.17$, $p=0.03$, $df=1$).

Comment

We originally planned a survey covering approximately 100 posts and all hospital specialties; unfortunately we were arrested by the fraud squad and charged with making fraudulent applications. Although not prosecuted, we were advised against continuing the work. Nevertheless, our results are important and suggest that discrimination does take place against ethnic minorities, apparently at shortlisting. English applicants were twice as likely to be selected, and this difference would probably have been greater had we carried out the full study and been able to include posts in teaching hospitals. Doctors from ethnic minorities predominate in at least two of our chosen specialties (psychiatry and geriatric medicine)—reflecting these specialties' comparative unpopularity³—and the proportion of such doctors is much greater in district general hospitals than in teaching hospitals.² It is

remarkable therefore that despite these two biases we still found a twofold difference.

Mechanisms could easily be incorporated to reduce the chance of name and ethnicity determining the likelihood of being shortlisted, as well as to monitor discrimination. As a start, we suggest that all application forms for medical posts should be standardised so that information identifying ethnic origin can be removed by the personnel department—for example, on a detachable front sheet. Ethnic monitoring should also be standard personnel practice so that all districts and regions can monitor whether equal opportunity policies are actually being implemented.

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Communication between general practitioners and child psychiatrists

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Previous studies have examined the content of referral letters from general practitioners to consultants as well as the requirements of consultants.¹⁻⁴ Child psychiatrists have a special interest in information about the child's family, as often the whole family will attend for assessment. This study aimed to review the content of referral letters from general practitioners to a child psychiatry department and to discover whether general practitioners and psychiatrists hold different views on the information that should be included in a referral letter.

Methods and results

From a consecutive series of 50 referral letters sent by general practitioners in Sunderland to the local department of child psychiatry, 15 items of information were identified that could account for all the information contained in the letters. The frequency with which each item appeared in the letters was recorded. Postal

questionnaires were then used to seek the views of local general practitioners and the child psychiatrists working in the Northern region. They were required to assess the importance of the 15 categories of information on a four point scale (categories of essential, desirable, doubtful, and irrelevant). They were also asked their views on the quality of referral letters in general.

Questionnaires were returned by 93 (63%) general practitioners and 26 (90%) psychiatrists. The table shows the frequency with which the 15 items of information occurred in the letters and the comparison of the importance given to the different items by the psychiatrists and the general practitioners.

The reason most often mentioned by general practitioners for poor quality letters was lack of time. A few replies contained the comment that families were sometimes reluctant to reveal information to their doctor. The main complaint from psychiatrists was that referral letters were too brief, with key information (particularly the attitude of the family to the referral and to involvement of other agencies) often absent.

Comment

Although the categorisation of information from referral letters is somewhat arbitrary, the study has the advantage that the items which the two groups of doctors were asked to assess were taken from a sample of actual letters. The study, moreover, replicates the finding by Kentish *et al* that the only item of information which is found consistently in referral letters is a description of the presenting symptoms.³ There was some consensus about the relative importance of certain items of information that a referral letter should include, but psychiatrists rated two key items of information of more importance: the attitude of the family to referral and whether other agencies are involved.

The attitude of the family has implications for the style of initial assessment carried out by the psychiatrist; if the psychiatrist realises from the outset that other agencies are involved then consent of the family for reports may be obtained at an early stage. Many general practitioners seem unaware of the importance for the psychiatrist of possessing this information before the family attends for the first appointment. It also seems that psychiatrists are

Information contained in referral letters from general practitioners of department of child psychiatry

Item	No (%) of sample letters (n=50)	Agreement between GPs and psychiatrists about importance of items (χ^2 , $df=3$)
Presenting symptoms and problems	46 (92)	3.5
History of presenting problems	20 (40)	10.9*
Composition of the family	19 (38)	2.4
Past medical and psychiatric history	18 (36)	3.2
Personal history including development and schooling	12 (24)	7.6
Assessment of family dynamics and relationships	11 (22)	15.3**
Attitude of the family to referral	9 (18)	8.9*
Provisional diagnosis	9 (18)	5.4
Drug history including recent treatment	9 (18)	0.5
Reason for and urgency of referral	8 (16)	2.9
Whether other agencies are involved	8 (16)	16.0**
Family medical and psychiatric history	5 (10)	4.9
Assessment of mental state of child	4 (8)	16.0**
Physical assessment of the child	4 (8)	3.0
Information and advice given to the family	4 (8)	2.3

* $p < 0.05$, ** $p < 0.01$.