Why are people from ethnic minority groups designated 'psychotic' more often than white people are?" At least that would have shown what their study is all about and allowed researchers and clinicians to benefit from the findings.

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1 King M, Coker E, Leavey G, Hoare A, Johnson-Sabine E. Incidence of psychotic illness in London: comparison of ethnic groups. *BMJ* 1994;**309**:1115-9. (29 October.)
2 Fernando S. *Mental health, race and culture.* London: MIND/Macmillan, 1991.
3 Kleinman A. *Rethinking psychiatry. From cultural category to personal experience.* New York: Free Press, 1988.
4 Loring M, Powell B. Gender, race and DSM-III: a study of the objectivity of psychiatric diagnostic behavior. *Journal of Health and Social Behavior* 1988;29:1-22.
5 Kleinman A. Depression, somatization and the new cross-cultural psychiatry. *Soc Sci Med* 1977;11:3-10.

Biological is not synonymous with genetic

EDITOR,—The finding by Michael King and colleagues that the incidence of schizophrenia is as high in the Asian as in the African Caribbean population in north London is intriguing.[1] They should perhaps be cautious in making this assertion as it is based on only seven Asian patients with schizophrenia and is not replicated by larger (although less methodologically satisfactory) previous studies.

I find their interpretation of their results rather puzzling. They quote my paper,[2] which says that biological rather than psychosocial factors may account for the higher incidence of schizophrenia among African Caribbean immigrants. They seem to assume that biological is synonymous with genetic or constitutional. My argument was that environmental biological factors, notably obstetric complications and intrauterine infections, could be implicated in raising the risk of schizophrenia among African Caribbeans. By contrast, King and colleagues say that if the increased risk arises through environmental factors this means such things as discrimination, racism, and cultural change. Unlike obstetric complications and intrauterine infections, there is no evidence that psychosocial factors can cause schizophrenia.

Indeed, most psychiatrists now regard schizophrenia as a brain disease, while agreeing that psychosocial stress can contribute to precipitating relapses, just as it can in multiple sclerosis. To extend the analogy between schizophrenia and multiple sclerosis, Dean *et al* found that African Caribbean and Asian immigrants to London had significantly lower rates of multiple sclerosis than did the indigenous white population.[3] Proposed explanations related to biological risk factors. No one suggested that racial discrimination was protective. Why do we think so differently about schizophrenia?

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2 Eagles JM. The relationship between schizophrenia and immigration: are there alternatives to psychosocial hypotheses. *Br J Psychiatry* 1991;159:783-9.
3 Dean E, McLaughlin H, Brady R, Adelstein AM, Tallet-Williams J. Multiple sclerosis among immigrants in greater London. *BMJ* 1976;i:861-4.

Census categories of ethnic group are limited

EDITOR,—Michael King and colleagues address the issue of ethnic minority group and schizophrenia.[1] Their work raises questions both about social class and schizophrenia and about the Office of Population Censuses and Surveys' ethnic groupings.

It is uncertain whether the low social class of those with diagnosed schizophrenia is a cause or a consequence of their illness.[2,3] This potential confounding factor has received scant attention in research on schizophrenia and ethnic group despite the association of certain ethnic minority groups with low social class as determined by occupation.[4] King and colleagues' focus on first presentation to psychiatric services is the ideal epidemiological framework to examine social class and schizophrenia. However, they do not discuss how typical their cases were in terms of social class in comparison with the local population (which scores highly on the Jarman indices) or the national population.

They may have had insufficient cases to comment on the possible correlation of ethnic group and social class in their sample. This weakens their assertion that belonging to any ethnic minority group predisposes to schizophrenia and other non-affective psychosis. It also reduces the power of their explanation that the "personal and social pressures of belonging to any ethnic minority group . . . are important determinants of the excess of psychiatric disorders. . . ."

Office of Population Censuses and Surveys' categories are an unsatisfactory description of ethnic group. King and colleagues ignore this difficulty and follow the office's guidelines, even when subjects "were unable" to categorise themselves in this system. Intracultural differences can be as important as intercultural differences, which is ignored by the Office of Population Censuses and Surveys' categories. They are administratively convenient, but their interrater reliability is not routinely considered. If this were true of other research instruments they would be discarded on methodological grounds. The degree to which the categories are of doubtful validity as indicators of subjects' self concept has not been examined. Our unpublished research in a court population addresses this.

One hundred subjects were asked to indicate their ethnic group. This generated 31 categories, including seven people who refused to ascribe themselves a category, indicating that they thought it an inappropriate concept; a further seven people said that they were unable to understand the concept. Office of Population Censuses and Surveys' categories assigned by the researcher were occasionally wildly at odds with the subjects' unrestricted assertions. If mental health research is truly concerned with cultural rather than political categories it must do better than to reduce cultural diversity to eight choices, one of which encompasses an entire continent.

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2 Hollingshead AB, Redlich FC. Class position of mental illness. In: *Social class and mental illness, a community study.* New York: Wiley, 1958:220-50.
3 Goldberg EM, Morrison SL. Schizophrenia and social class. *Br J Psychiatry* 1963;109:785-802.
4 Ineichen B, Harrison G, Morgan HG. Psychiatric hospital admissions in Bristol. I. Geographical and ethnic factors. *Br J Psychiatry* 1984;145:600-11.

Some ethnic groups may be more vulnerable to extremes of social deprivation

EDITOR,—Michael King and colleagues report a strikingly increased risk of psychotic disorders of new onset across all ethnic minority groups.[1] Their data do not allow an examination of the relative risks of long term psychotic illness within these groups. By analysing data from a register of long term users of services we are able to estimate the relative risk of receiving diagnosis of a long term psychotic disorder for white (United Kingdom/Irish), black (African/African Caribbean), and Asian (Indian/Pakistani/Bangladeshi) groups living in two London boroughs.

Pathfinder provides a locality based specialist mental health service to most of the inner London borough of Wandsworth (Jarman index 23·1) and all of the outer London borough of Merton (Jarman index 13·4). For the past five years an annual census of people aged 16-75 who are currently in contact with the service and who had their first psychiatric contact two or more years ago has been completed by one of us (RP). This long term case register includes the psychiatric diagnosis and ethnic group in addition to data on accommodation, role disturbance, and use of services.

We have analysed the data for the past five years to give estimates of the prevalence and relative risk, by ethnic group, of schizophrenia (table). Overall, the data for chronic psychosis parallel the findings of King and colleagues. The relative risk of being a long term service user with a diagnosis of

Numbers of white, black, and Asian people with schizophrenia on long term case register in Wandsworth and Merton

	White		Black			Asian		
Year	No	No/1000	No	No/1000	Relative risk* (95% CI)	No	No/1000	Relative risk* (95% CI)
				Wandsworth				
	n=113 211		*n*=15 631			*n*=8290		
1990	205	1·8	111	7·1	3·92 (3·1 to 4·9)	41	4·9	2·7 (1·9 to 3·8)
1991	248	2·2	136	8·7	3·97 (3·2 to 4·9)	41	4·9	2·26 (1·6 to 3·1)
1992	266	2·3	141	9·0	3·84 (3·1 to 4·7)	45	5·4	3·31 (1·7 to 3·2)
1993	248	2·2	152	9·7	4·4 (3·6 to 5·4)	43	5·2	2·37 (1·7 to 3·3)
1994	257	2·3	150	9·6	4·23 (3·5 to 5·2)	51	6·2	2·71 (2·0 to 3·7)
				Merton				
	n=105 001		*n*=6270			*n*=6387		
1990	182	1·7	26	4·1	2·39 (1·6 to 3·6)	31	4·9	2·80 (1·9 to 4·1)
1991	205	2·0	34	5·4	2·81 (2·0 to 4·0)	35	5·5	2·78 (1·9 to 4·0)
1992	196	1·9	44	7·0	3·76 (2·7 to 5·2)	31	4·9	2·60 (1·8 to 3·9)
1993	205	2·0	34	5·4	2·78 (1·9 to 4·0)	33	5·2	2·65 (1·8 to 3·8)
1994	179	1·7	27	4·3	2·53 (1·7 to 3·8)	33	5·2	3·03 (2·1 to 4·4)

CI=Confidence interval.
*Risk relative to that of local white population.

schizophrenia is increased for black people and Asians compared with the local white population in Merton and Wandsworth. There seems, however, to be an additional risk for black people living in Wandsworth. There is a non-significant trend to a slightly increased risk of bipolar affective disorder.

As a service driven instrument the long term case register does not have the epidemiological robustness of King and colleagues' study, but we do not consider our findings to be artefacts. The differences among ethnic groups have been stable over five years despite a 47% turnover of people on the register and a 70% change in the consultants making the clinical diagnoses. Furthermore, as mental health services are often considered to be inaccessible to ethnic minorities the long term case register may be expected to underestimate the prevalence of psychotic disorders within these populations.

Our data support King and colleagues' view that factors conferring vulnerabilty to non-affective psychoses cross ethnic boundaries. The differences we have found between inner and outer London boroughs, however, suggest that some groups may be more vulnerable to extremes of social deprivation.

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Larger studies are needed

EDITOR,—In general, I would not dispute the broad conclusions of Michael King and colleagues, which point to the role of increased personal and social pressures in ethnic minority groups as determinants of raised incidence of psychotic illnesses.[1] Specifically, however, their paper raises six issues.

Firstly, the number of Asian patients was small (Indian, five; Pakistani, three; other Asians, three)).

Secondly, what statistical inference can be derived from such small numbers? No analysis of this is shown and all the ethnic minority groups seem to be grouped together, although they are not a homogeneous group. Thirdly, is it valid to generalise about the incidence of psychosis from the small numbers studied? Fourthly, how representative is the catchment area of St Ann's Hospital of London's ethnic population?

Fifthly, do higher figures of psychosis seen by specialist study team represent a relative failure of the primary care sector in diagnosing and treating cases among ethnic minority groups?

Finally, there seemed to be no researcher in the group who was familiar with the languages or the culture of Asian patients. This could have led to increased diagnosis of psychosis (King and colleagues, however, do acknowledge that the diagnosis in first onset psychosis is not always straightforward). The possibility of misdiagnosis cannot be ruled out.

I think that there is a need to follow up this valuable study with larger multicentre studies in the United Kingdom that cover a wider age group (including elderly people). Any firm conclusions should await such further research.

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Accuracy of variables describing ethnic minority groups is important

EDITOR,—Michael King and colleagues conclude that members of all ethnic minority groups are more likely to develop psychosis and that important determinants of this increased risk are the personal and social pressures of belonging to an ethnic minority group in Britain.[1]

An assumption is that all ethnic minority groups can be treated as one, but the great diversity of cultures makes this assumption tenuous. Moreover, the rates of mental illness presented in the paper show wide differences between ethnic minority groups as defined by the Office of Population Censuses and Surveys; in some there is no proved increased incidence of schizophrenia or non-affective psychosis. It is questionable whether it is valid or useful to look at ethnic minority groups as a single category.

But given the study's terms of reference it did not measure what it purported to. The "ethnic minority group" comprised all those who assigned themselves to Asian or black groups as defined by the Office of Population Censuses and Surveys, but 22 of the 39 people with psychotic disorders in the white comparison group were also from ethnic minority groups (Irish, Turkish, Cypriot, Greek Cypriot) or from other European countries, and most of the patients in the white group who were suffering from schizophrenia were migrants or the offspring of migrants. To test whether being part of an ethnic minority group is important it would be more appropriate to compare all of the ethnic minority groups, including the white ethnic minority groups, with the white British subgroup.

All this said, it is still a great, and unsubstantiated, leap of faith to assert that any increased incidence is due to the pressures of living in the United Kingdom.

A major confounder in comparisons between ethnic groups is social class. The analysis of socioeconomic status in this paper was between individual ethnic groups as defined by the Office of Population Censuses and Surveys. Numbers in each group would have been small, increasing the chance of a type II error. There remains a possibility that socioeconomic status confounds the results.

The purpose of this letter is to emphasise the need for accuracy when using variables which describe ethnic groups, to ensure that the limitations of these variables are clear, and to ensure that important confounders are properly assessed. I have argued previously that Office of Population Censuses and Surveys definitions of ethnic groups alone are not sufficient for aetiological research.[2] If a hypothesis led categorisation which explored cultural differences had also been used in this study then the authors may have better managed to answer aetiological questions which they tried to approach.

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1 King M, Coker E, Leavey G, Hoare A, Johnson-Sabine E. Incidence of psychotic illness in London: comparison of ethnic groups. *BMJ* 1994;**309**:1115-9. (29 October.)
2 McKenzie KJ, Crowcroft N. Race, ethnicity, culture, and science. *BMJ* 1994;**309**:286-7.

Authors' reply

EDITOR,—We acknowledge the criticisms of our findings for Asians. We were not the first to report raised rates in Asians,[1] but we emphasised that our findings were tentative. Clearly, there are cultural differences among Asians from the Indian subcontinent. We grouped them to increase the power of our main comparisons. A professional translater was used when there was a language difficulty. All the Asian patients, however, spoke fluent English.

We cannot comment on the unpublished findings of D Bhugra and colleagues and of Annie Bartlett and Matthew Fiander, but we look forward to seeing them in due course. We do not agree with Bhugra and colleagues that raised rates of psychosis in African Caribbeans is a well established finding. Previous reports have depended on uncertain estimates of the base population. Although there were problems with the 1991 census, it remains the most accurate assessment of the ethnic structure of the community.

Susan Fernando's implication that each patient's race was "perceived" by a psychiatrist is incorrect. Ethnic status was self assigned by patients according to the procedure used in the 1991 census. Ethnic group was not confused with race and diagnoses were not biased by knowledge of ethnic group. The white group contained a large number of people born in Britain but with other cultural backgrounds. Unfortunately, we could not estimate rates for these groups. The failure to differentiate between white people from different ethnic backgrounds is a fundamental weakness of the 1991 census.

We acknowledged the difficulty of applying Western concepts of mental illness to other cultures. All patients and relatives were interviewed about their problems, perceptions of life in Britain, and experiences of racism. Cultural models of emotional disturbance are being constructed from these data. Our patients were interviewed one year later, and we will compare the predictive validity of cultural models of illness with Western psychiatric models.

We do not exclude biological precipitants as John M Eagles assumes. Social factors may act directly in the relapse of a psychosis. They may also act indirectly. There is a close association between social deprivation and obstetric complications or rates of infection.

Bartlett and Fiander raise an important point about social class. As we stated, there was no difference in social class between the ethnic groups. We have since obtained figures for the Haringey Local Authority, an area comparable with the catchment area of the study. The Haringey figures contain significantly more people in social classes I and II but a breakdown of social class by ethnic group is not provided. Thus we cannot separate out the effects of ethnic group and class.

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Advice to authors

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