more likely to be married or living with parents at the end of the follow-up period than the other two groups. Similarly, in the study at the Joint Hospital, significantly more of the Asian group than the white group were living with a partner at the time of the index episode. However, this study also compared the Asian group in London with a similar group of patients on the Indian subcontinent. Preliminary findings show that the former were significantly less likely to be living with a partner than the latter (Gupta et al, 1991). This suggests that immigrant status may be associated with erosion of the traditional family supports available to Asian patients. This, combined with cultural barriers to the use of conventional services, could place many Asians in this country in an isolated position (Beliappa, 1991).

I would agree with Birchwood *et al* that further, more detailed studies (both in the UK and on the Indian subcontinent) would be very helpful in shedding light on the patterns of psychiatric disorder among different ethnic groups in this country. These patterns are a matter for concern at governmental as well as local level (Department of Health, 1992) as they may have important implications for public health and policy.

- BELIAPPA, J. (1991) Illness or distress? Alternative Models of Mental Health. London: Confederation of Indian Organisations.
- DEPARTMENT OF HEALTH (1991) On the State of the Public Health. London: HMSO.
- GUPTA, S. (1991) Psychosis in migrants from the Indian subcontinent and English-born controls. A preliminary study on the use of psychiatric services. British Journal of Psychiatry, 159, 222–225.
- (1992) Psychosis in Asian immigrants from the Indian subcontinent: preliminary findings from a follow-up study including a survey of general practitioners. Social Psychiatry and Psychiatric Epidemiology, 37, 242–244.
- —, GAUTAM, S. K. & KAMAL, P. (1991) A cross-cultural study of functional psychoses: Asian immigrants compared to indigenous Asian controls (abstract). In Proceedings of the 43rd Annual National Conference of the Indian Psychiatric Society. Calcutta: IPS.

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SIR: The findings of Birchwood *et al* (Journal, December 1992, **161**, 783–790) contrast with those of Perera *et al* (1991), who found no significant difference between Asians, Afro-Caribbeans and Caucasians in terms of (a) age of onset, (b) time between onset of illness and first psychiatric contact and (c) number of readmissions in their Harrow study. This may be because their study was restricted to those subjects fulfilling the Feighner criteria for schizophrenia who were matched for age and sex, or because of demographic variability between Harrow and Birmingham. It was unfortunate that Birchwood *et al* decided not to consider the differential use of illicit drugs by the three groups, as the Harrow study found illicit drugs to be mainly a Caucasian/ Afro-Caribbean problem. Birchwood *et al* suggested greater tolerance of disturbance by extended families and the underuse of psychiatric services may be 'camouflaging' relapse among Asians, yet go on to suggest that the reduced rate of relapse may be the result of a limited progression of illness and prompt access to services by virtue of the greater visibility of disturbed behaviour in an extended family!

It is difficult to isolate cultural factors that may be contributing to a more favourable outcome for schizophrenia in developing countries by studying immigrant groups, as factors leading to a higher incidence of schizophrenia among immigrants are as yet ill-defined and cannot be corrected for. In respect of the latter I would like to suggest the lack of congruence between expectation of acceptance by the foster culture and the perceived acceptance by it as a factor contributing to high levels of schizophrenia among immigrants. (This may act by a similar mechanism to high expressed emotion.) In support of this is the high rates for schizophrenia among Afro-Caribbeans, and moderately high rates for Asian immigrants in Britain, compared to native British. (See Leff (1988) for a review of the relevant studies.)

English is the mother tongue of Afro-Caribbeans and they regard Britain as a sort of parent country. Hence they have high expectations of being accepted by the foster culture. For Asians, English is not the mother tongue (some of them may not even speak English) and they try to preserve their culture and values by aggregating, in an attempt to insulate themselves from the foster culture. Hence their need and expectation of being accepted by the foster culture is less. Harrison et al's (1988) finding that second-generation Afro-Caribbeans showed an even higher rate of schizophrenia than Afro-Caribbean immigrants lends further support to this hypothesis. Afro-Caribbeans who were born and grew up in Britain would expect to be accepted into British society even more than their immigrant parents. Further circumstantial support comes from the Harrow study which found that Caucasians socialised significantly more outside their place of residence compared to Afro-Caribbeans and Asians. A joint psychiatric and anthropological study may throw further light on this interesting question.

HARRISON, G., OWENS, D., HOLTON, A., et al (1988) A prospective study of severe mental disorder in Afro-Caribbean patients. *Psychological Medicine*, 18, 643–657.

LEFF, J. (1988) Psychiatry Around the Globe (2nd edn). London: Gaskell.

PERERA, R., OWENS, D. G. C. & JOHNSTONE, E. C. (1991) VIII. Ethnic aspects: a comparison of three matched groups. British Journal of Psychiatry, 159 (suppl. 13), 40–42.

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SIR: The recent paper by Dr Birchwood *et al* (Journal, December 1992, 161, 783–790) purported to show a better outcome for Asians with schizophrenia, as compared with white and Afro-Caribbean patients. They examined rates of hospital readmission in the year following discharge for patients known to have remained resident within the area, and found these rates to be 3 out of 19 for Asians, 17 out of 35 for Afro-Caribbeans, and 14 out of 47 for whites. They then proceeded to do a 3 by  $2 \chi^2$  test, which was statistically significant, and reached the conclusion that this showed Asian patients to have a better outcome.

The significant  $\chi^2$  test, however, does not indicate this at all; merely that there was a significant difference between the three groups. Indeed, if one carries out a 2 by 2  $\chi^2$  test comparing Asian patients with Afro-Caribbeans and whites combined, there is no significant difference between these groups. On the other hand, if one compares Afro-Caribbeans with Asians and whites combined, there is a significant difference between the groups ( $\chi^2=4.36$ , P<0.05).

Therefore, the most sensible conclusion from the data would be that Afro-Caribbean patients show a poorer prognosis than do the other two ethnic groups. Given that the Afro-Caribbeans in this study were less likely to be discharged to live with their families, the finding does not refute the authors' contention that social reintegration may be a protective factor in the prognosis of schizophrenia. However, as with the higher rates of unemployment among the Afro-Caribbeans at follow-up, the absence of social reintegration may be a result rather than a cause of continuing schizophrenic symptoms.

While the authors do not, in my view, reach the right conclusions from their data, and while the great majority of the paper relates to possible psychosocial influences upon outcome, it is heartening that they acknowledge the possibility that there may be genuine differences in the severity of schizophrenia between different ethnic groups.

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Ross Clinic Cornhill Road Aberdeen AB9 2ZF AUTHORS' REPLY: Our study of the early course of schizophrenia among patients from the Indian subcontinent living in the UK replicates closely the results of Dr Gupta (1991) (whose study appeared after our paper entered the review process) in finding a lower rate of relapse readmission compared to other groups. As we were at pains to point out in our paper, we offered our study as exploratory and hypothesis-generating; thus we have no difficulty in suggesting that the results may be accounted for by service underuse ('the camouflaging hypothesis'), or by differences in progression of illness before first contact influencing subsequent relapse risk. Similarly, the size of the sample studied leads us to conclude that we shall have to double our sample size of Asian patients to at least 40 to test the hypothesis in a prospective study. Such a study must be epidemiologically based; centre-based matched samples could distort any effects as Dr Perera indicates.

Dr Perera observes rightly that immigrants tend to be at greater risk for serious mental disorder than indigenous groups, thus complicating the testing of differential course and outcome hypotheses. However, we would be predicting a more *favourable* outcome among Asian groups, and not a worse one as might be expected if factors raising morbidity were at play in prognosis. What is of interest to us are the *correlates* of ethnicity rather than any 'endogenous' differences to which Dr Eagles refers, although such a possibility cannot be discounted.

The recent report from the WHO's two-year follow-up of schizophrenic patients taking part in the ten-country first-contact study (Jablensky et al, 1992) confirms previous findings that the early course of schizophrenia in developed countries is markedly inferior to those living in the less industrialised nations: in spite of greater use of neuroleptic medication and better service infrastructure. Mode of onset, gender, illicit drug use, and clinical presentation could not account for this effect. These findings suggest that the concept of schizophrenia as the manifestation of an entirely malignant process is incomplete. We agree with the views of Dr Gupta that a study of Asian patients in the UK has important implications for public health and policy, but it also presents researchers in the UK with important opportunities for research on these issues.

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GUPTA, S. (1991) Psychosis in migrants from the Indian subcontinent and English-born controls. A preliminary study on the use of psychiatric services. *British Journal of Psychiatry*, 159, 222-225.