Psychosis in Migrants from the Indian Subcontinent and English-Born Controls
A Preliminary Study on the Use of Psychiatric Services

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A cohort of first-generation Asian immigrants who received a diagnosis of a functional psychosis at the Bethlem Royal and Maudsley Hospitals were compared with an English-born control group. The Asians were found to have spent a lower total percentage of time in the two hospitals, had fewer in-patient admissions per year, and had a shorter average duration of stay in hospital than the matched controls.

The International Pilot Study of Schizophrenia (IPSS) showed that the two-year outcome of schizophrenia was better in 'developing' countries such as India than in 'developed' nations such as the United Kingdom (World Health Organization, 1979). Similar findings at five-year follow-up have recently been reported (Sartorius et al., 1987), and the difference was also demonstrated in the Study on the Determinants of Outcome of Severe Mental Disorders (Sartorius et al., 1986) which was epidemiologically based. In line with these results, a recent multi-centre follow-up study from India showed that a high proportion of cases that met initial diagnostic criteria for schizophrenia had a good two-year outcome (Verghese et al., 1989).

There has also been a growing interest in the mental health of subjects who have emigrated from the Third World to the United Kingdom (Rack, 1982a, b; Cox, 1986; London, 1986; Rathwell & Phillips, 1986; Cochrane & Bal, 1987, 1989; Fernando, 1988; Leff, 1988; Cruickshank & Beevers, 1989; Littlewood & Lipsedge, 1989). One of the most consistent findings has been an increase in the rate of diagnosis of schizophrenia among these immigrant groups, including those from the Indian subcontinent (e.g. Cochrane, 1977; Carpenter & Brockington, 1980; Dean et al., 1981; Littlewood & Lipsedge, 1981; Shaikh, 1985; Cochrane & Bal, 1987, 1989).

However, studies on immigrants may be particularly subject to biases and artefacts, and this applies to longitudinal as well as cross-sectional investigations. For example, Cochrane & Bal (1987) found very low readmission rates in some Asian subgroups, but they argue that this could be because some of the patients had returned to their country of origin during follow-up. Shaikh (1985) studied Asians who were admitted to psychiatric hospitals in Leicestershire in 1978, and found that they received a higher proportion of schizophrenic diagnoses than matched controls.

When all diagnoses were combined there was no difference in the total length of stay of the two groups over three-year follow-up, but unfortunately out-patients were not taken into account.

The present study reports preliminary findings from a follow-up study of Asian immigrants who made contact with the Bethlem Royal and Maudsley Hospitals in London either as in-patients or as out-patients, and who were given a diagnosis of a non-organic adult psychosis.

Method

Two groups of patients were compared. The first consisted of a consecutive series of 86 first-generation Asian immigrants born on the Indian subcontinent (India (57), Pakistan (13), Bangladesh (6) and Sri Lanka (10)), all of whom were seen at the Bethlem Royal and Maudsley Hospitals ('Joint Hospital') between 1969 and 1983, inclusive, and have been given a diagnosis of a functional adult psychosis (ICD-9 (World Health Organization, 1978): 295, 296, 297 or 298). The second group consisted of an equal number of patients who were born in England (a small number of whom may have been second-generation immigrants), matched with the Asians for date of admission and age, and who had also received a diagnosis of a functional adult psychosis.

Both groups were initially ascertained using the computerised records of the Joint Hospital as a sampling frame. The corresponding case notes were then retrieved, and any patients with a concurrent diagnosis of organic cerebral disease or mental retardation, and any patients who were already known to the author, were excluded; this applied to very few patients. Subjects excluded from the matched group were replaced. After exclusion there were 86 patients in each group.

Details of subsequent admissions to the Joint Hospital were obtained from the 'front sheets' of the case notes.

Results

Males comprised 67% of the Asians, but only 43% of the controls (standardised normal deviate = 2.79, P < 0.01, two-
tailed, using McNemar’s test). A significantly higher proportion of the Asians were married or cohabiting (as opposed to single, widowed, separated or divorced: standardised normal deviate for those patients for whom data were available = 3.43, $P<0.001$, two-tailed, using McNemar’s test). There was no significant difference between the two groups on employment status at the time of initial contact.

Follow-up for each patient was divided into three time periods: two years from the time of initial contact with the Joint Hospital, five years from initial contact, and total time between initial contact and the date on which the case notes were scrutinised in 1987/88. For each of these time periods, three indices were calculated:

(a) the total percentage of the time spent as an in-patient at the Joint Hospital
(b) the total number of separate in-patient admissions per year
(c) the average duration of each in-patient stay.

Table 1 shows the mean values for each index for each of the three time periods. Inspection of the data for the proportion of the total follow-up period spent in the Joint Hospital revealed that the distribution of scores was markedly asymmetric in both groups. However, there were interesting differences. In the Asian group, approximately two-thirds of the subjects spent less than 1% of follow-up in the hospital, whereas this applied to only about half of the controls. However, the proportion of the patients who were never admitted to the Joint Hospital did not differ significantly between the two groups, although there was a trend for this proportion to be higher in the Asian group (standardised normal deviate = 1.79, $P<0.10$, two-tailed, using McNemar’s test). As the data were non-parametric in form, Wilcoxon rank-sum tests were employed to compare the two groups on corresponding measures. In each case the Asians had significantly lower scores for use of in-patient services. The three time periods are not wholly independent of one another, and the same applies to the three indices of service utilisation. However, the fact that all nine comparisons were significant suggests that the results were not simply due to type I error.

Significantly fewer Asians had had a previous hospital admission for a psychiatric disorder (standardised normal deviate = 2.79, $P<0.01$, two-tailed, using McNemar’s test). To allow for the possible effect of this, the mean values for the percentage of total follow-up spent as an in-patient at the Joint Hospital were recalculated for the patients who were recorded as having no history of a previous psychiatric hospitalisation. The values were unchanged compared to those shown in Table 1. Enquiries made at the time the notes were scrutinised showed that a similar proportion of the patients in each group were still registered with the same general practice as at the time of initial contact with the hospital.

Table 1

<table>
<thead>
<tr>
<th>Percentage of time as an in-patient</th>
<th>2 years</th>
<th>5 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asians</td>
<td>5%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Matched controls</td>
<td>10%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Number of in-patient admissions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asians</td>
<td>0.27*</td>
<td>0.13*</td>
<td>0.08*</td>
</tr>
<tr>
<td>Matched controls</td>
<td>0.41*</td>
<td>0.20*</td>
<td>0.11*</td>
</tr>
<tr>
<td>Average time of in-patient stay:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asians</td>
<td>30*</td>
<td>29**</td>
<td>32*</td>
</tr>
<tr>
<td>Matched controls</td>
<td>54*</td>
<td>59**</td>
<td>59*</td>
</tr>
</tbody>
</table>

Differences between Asians and matched controls:
*significant at 5% level using Wilcoxon’s test.
**significant at 1% level using Wilcoxon’s test.
All values are two-tailed.

Discussion

For each of the three time periods following initial contact with the Joint Hospital, the Asian group had lower scores on percentage of time spent as an in-patient at the Hospital, total number of separate in-patient admissions per year, and the average duration of each in-patient stay. There are a number of possible explanations for this difference, and I will briefly consider each in turn.

Bias

It is possible that the Asians were more mobile than the controls and that they were admitted to hospitals in other catchment areas or even other countries. However, a similar proportion of the patients in the two groups had remained registered with the same general practice between the time of initial contact and the time the case notes were scrutinised. The inclusion criteria for the present study were based on hospital diagnoses recorded in the case notes’ ‘front sheet’ and the hospital’s computerised records. Some of these diagnoses may have been incorrect, the most likely mistake perhaps being the misdiagnosis of schizophrenia as a non-schizophrenic (e.g. affective) psychosis or vice versa (it is hoped to examine this issue in a separate analysis). However, the diagnostic categories were combined before the service utilisation indices were calculated.

Social and cultural differences

There are considerable cultural differences between Asian immigrant and indigenous, English-born patients, and these may to some extent reflect
patterns in their country of origin. Sethi & Manchanda (1980) have pointed out that in India, admission to a psychiatric hospital is heavily stigmatised and therefore likely to be avoided by the patient’s family as far as possible. Furthermore, some subgroups may have retained their usual extended social networks (see Cochrane & Bal, 1989) and this may make it feasible in some cases to avoid or shorten in-patient stay. The fact that a higher proportion of the Asians were living with a partner at the time of initial contact could be an effect of differences in clinical profile between the two groups, but it could also be a determinant of such differences, including those found in the pattern of subsequent admissions. The higher proportion of males among the Asians is also noteworthy, although it may simply reflect the difference in the distribution by gender of Asian immigrants and English-born subjects in the general UK population (see Cochrane, 1977; Carpenter & Brockington, 1980).

**Differences in the severity and the outcome of the disorder**

The lower overall index of in-patient stay among the immigrants was related to the fact that during follow-up the Asians had significantly fewer admissions per year, and a significantly lower average duration of stay. These facts suggest that the Asians may indeed have had a better outcome than the controls: a finding similar to that obtained in cross-national studies of schizophrenia (although the present study included all patients diagnosed as having a non-organic psychosis, not just those diagnosed as schizophrenic). However, the factors that predict admission (e.g. Zohar et al, 1987) or readmission (e.g. Pokorny et al, 1983) of a patient are very complex, and the same applies to the length of time a patient stays in hospital (e.g. Lenz et al, 1986). McPherson (1984) has pointed out that little is in fact known about the distribution of variables to actual outcome, but Henderson et al (1989) have argued, nevertheless, that data on readmissions may be used as one measure of outcome and also as indicators of service ‘performance’.

**Conclusion**

The authors of the International Pilot Study of Schizophrenia point out that differences between cultural groups may be due to at least four types of variables: biasing factors, sociocultural factors, treatment factors and constitutional factors. While the possibility of bias cannot be excluded entirely in the present investigation, the differences between Asian and control psychotic patients could be due to an interaction between the characteristics of the service and the sociocultural features of the different ethnic groups. However, there may also be genuine differences in outcome which are related in part to constitutional factors. This possibility merits further study.

Whatever the cause of the differences in service utilisation, one thing is clear: if confirmed in other settings they would have important implications for service planning and provision. A recent working party of the Royal College of Psychiatrists (1988) has emphasised the role of planning in ensuring that a service meets the needs of its local community. The present findings suggest that the ethnic and cultural composition of that community may need to be taken into account in any such considerations.

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**References**


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