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The Functional Psychoses in Afro-Caribbeans

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When 54 Afro-Caribbean and 49 white British consecutive psychotic in-patients were prospectively studied for clinical differences in course of illness and pattern of symptoms, no major differences were found. This does not support the hypothesis that misdiagnosis within the psychoses can explain the higher admission rates of schizophrenia calculated for Afro-Caribbean populations.

Considerable interest has emerged over the apparently high incidence rate of schizophrenia in the Afro-Caribbean population of the UK (Rwegellera, 1977; Bebbington *et al*, 1981; McGovern & Cope, 1987; Cochrane & Bal, 1987; Littlewood & Lipsedge, 1988; Harrison *et al*, 1988). Other studies based on in-patient samples have also noted an excess of functional psychoses among Afro-Caribbean patients (Cochrane, 1977; Carpenter & Brockington, 1980; Dean *et al*, 1981; Cochrane & Bal, 1989; Glover, 1989).

One explanation of these elevated rates is a greater frequency of brief and atypical psychoses in the Afro-Caribbean population, which may be erroneously diagnosed as schizophrenia, particularly since diagnostic reliability can be reduced when assessing someone from another culture (Littlewood & Lipsedge, 1981*a*,*b*; Adebimpe, 1981; Cochrane & Bal, 1987). Rack (1982) suggested that psychogenic psychoses were commoner in the Afro-Caribbean population, being brief disorders in reaction to life stresses with good outcome, but such an excess was not identified by Harrison *et al* (1988, 1989) in their well designed study.

Quite apart from epidemiological issues, a mental disorder with the same phenomenology in various ethnic groups could still exhibit substantial differences in its course and outcome, despite using diagnostic criteria without cultural bias. This would be of equal importance to know in managing individual patients and planning services. If these ethnic differences are common then they should be apparent in a moderately large sample of patients defined by acceptable criteria as having a functional psychosis. If not, then these particular diagnostic issues seem unlikely to explain the elevated rates observed above.

The study reported here is based on a prospective sample of consecutive admissions to one hospital. It provides an opportunity to explore possible clinical differences between Afro-Caribbean and white British patients, without any selection bias after the point of admission. In particular, diagnostic bias can be reduced and examined by including all patients who satisfy broad criteria of psychosis. Although this hospital provides the adult service for an entire catchment area, no attempt was made to identify all patients resident in that area who satisfied these criteria, so that patients seen in other settings were not included.

It is accepted that pathways into psychiatric care differ according to ethnic origin (Rwegellera, 1980; Harrison *et al*, 1984) which may distort hospital data, for example, through greater use of compulsory admissions for Afro-Caribbean patients (Rwegellera, 1980; Littlewood & Lipsedge, 1981*a*). People may be diagnosed psychotic because of their behaviour or experiences that appear bizarre in the majority culture but would not be regarded as evidence of serious mental illness within their own. A consideration of these differential filters before admission is, however, beyond the scope of this study, and such cases of misdiagnosis were excluded if apparent.

Nonetheless, in a clinical study of Afro-Caribbean patients it is important to take into account their specific demographic pattern, as well as social and cultural differences, due to their pattern of immigration into the UK. This increased after the 1952 McCarran Act in the USA prohibited further immigration there, while free migration was permitted to the UK until the Immigration Acts of 1962, 1968 and 1971 progressively restricted further entry. Local population data were therefore required in order to provide such information.

Method

The study was based in the Camberwell Health District, an inner-London area that comprises East Lambeth and South Southwark. The psychiatric unit attached to King's College Hospital takes all adult admissions from East Lambeth with the exception of those admitted to one of the Maudsley Hospital's regional specialist units in the neighbouring district. Population data for East Lambeth were obtained from the 1981 census, using also the projected 1986 population estimates produced by the Office of Population

Censuses and Surveys (OPCS) and the OPCS Small Area Statistics from the 1981 census (OPCS, 1981) for the nine electoral wards that comprise East Lambeth. In 1981 this district was the sixth most socially deprived out of 192.

The patient group consisted of 127 consecutive adult patients admitted with a psychotic illness to this unit over the period March 1986 to March 1987. A further 23 patients, assessed identically in a pilot study during 1985, were included to yield an initial total sample of 150. Patients admitted more than once during the study had only the first admission assessed. Patients over 70 years of age were excluded.

To recruit this sample all psychiatric admissions to the unit were initially screened for a possible psychotic illness using a brief screening check-list that contained the following six items: delusions, hallucinations, catatonic or bizarre behaviour, marked loss of contact with reality, profound lack of insight, and perplexity. Patients who failed to score positively on at least one item were considered not psychotic and excluded; inter-rater reliability on this decision among three of the authors (MW, PMcG and IH) administering the check-list was high (kappa = 0.88, $P = 0.001$). Patients scoring at least one item positively were then interviewed using the Present State Examination (PSE; Wing *et al*, 1974) by a psychiatrist trained in the technique and were included only if they displayed some hallucinatory or delusional phenomena. Patients were not included on the basis of past psychotic phenomena or negative symptoms alone because of the uncertain validity of recorded symptoms and of judgements made largely on the basis of behaviour.

The PSE was usually administered within 24 hours of admission, and in all cases within the first three days; the number of suitable patients who left the unit without being included would have been very few but cannot be quantified in the absence of interview data. Additional information required for diagnoses according to Research Diagnostic Criteria (RDC; Spitzer *et al*, 1977) and DSM-III (American Psychiatric Association, 1980) were collected through patient interview and whatever collateral history was contained in the case notes. An ICD-9 diagnosis was also assigned (World Health Organization, 1978). Judgements about cultural normality were available, if there was doubt, from interview with a relative, which was possible in 54% of Afro-Caribbean patients. All diagnoses took account of past episodes as well as the present one. If a patient was uncommunicative on admission the PSE was repeated at a later date when subjective experiences could be discussed adequately. The Syndrome Checklist (SCL) of the PSE was completed using the case notes for all previous episodes and, together with the other PSE data, entered into the CATEGO program (Wing *et al*, 1974). Eight patients with an organic psychosis were excluded, as were five patients with insufficient diagnostic information. The use of cannabis was not taken as presumptive evidence of an organic psychosis and such patients were therefore retained.

The ethnic group of each parent was recorded as white British, Afro-Caribbean, West African, Indian/Pakistani, or 'other' on the basis of either physical appearance or report by family members. Forty-nine patients were of white British parentage, 54 Afro-Caribbean, nine West African, eight were from other ethnic groups, five were of mixed parentage, and in 12 cases ethnicity could not be reliably ascertained. The first two of these subgroups form the basis of this analysis, giving a sample of 103. The patient's country of birth was also recorded.

Clinical data regarding course of disorder, drug response, previous admissions and other relevant items were acquired from available case notes, and a sociodemographic schedule was completed after interview with an independent informant. Family history of psychiatric illness was constructed from a semistructured interview with the patient and at least one other relative wherever possible. Occupation was coded according to the method of Goldthorpe & Hope (1974). Raters were not blind to the patient's ethnic group.

The total population aged 15–69 for East Lambeth in 1986 was estimated at 57 671 in the OPCS projections. For the Afro-Caribbean population there are no accurate local figures since the 1981 census recorded country of birth but not the ethnic group of each individual, so British-born Afro-Caribbeans cannot be identified. However, an attempt was made to estimate figures for first- and second-generation Afro-Caribbeans separately, using the 1981 census figures on the number of residents in private households subgrouped according to age and birthplace of the head of household. These figures will be a fairly accurate population estimate for the second generation aged 10–19, who were then living with parents born in the West Indies.

TABLE I

Ethnic group and sex of East Lambeth population estimated for 1986 (% of total for that age group in parentheses)

	Male	*Female*	*Total*
Age 15–24 years			
Second-generation Afro-Caribbeans	2112 (13.0)	2349 (14.5)	4461 (27.5)
White British	3911 (24.1)	4016 (24.8)	7927 (48.9)
Other	1894 (11.7)	1929 (11.9)	3823 (23.6)
Total	7917 (48.8)	8294 (51.2)	16211 (100)
Age 45–69 years			
First-generation Afro-Caribbeans	1507 (8.3)	1714 (9.5)	3221 (17.8)
White British	4838 (26.7)	6492 (35.8)	11330 (62.5)
Other	2299 (12.7)	1273 (7.0)	3572 (19.7)
Total	8644 (47.7)	9479 (52.3)	18123 (100)

Nonetheless, it would include a minority born in the West Indies rather than the UK, and exclude some teenagers and young adults immigrating between 1981 and 1986 to rejoin their families. These individuals ($n = 4461$) would be aged 15–24 in 1986 and constitute an age group at risk for schizophrenia, particularly in males. This figure could be broken down according to sex using OPCS estimates of the East Lambeth male and female population in 1986. The first half of Table I shows, for this 15–24-year age group, these estimates of the East Lambeth population in 1986.

First-generation Afro-Caribbeans can be identified in those aged 45 or over, but the intervening ages contain both first and second generations, owing to the 15–20-year wave of migration. For this 45–69-year age group a similar extrapolation yields the remainder of Table I.

Results

There were 46 men and 57 women, aged 15–69, with a mean age of 39 years (mode 30). Women were significantly older than men (mean age 43.1 and 34.3 years respectively; Mann–Whitney, $P = 0.001$). Of the 54 Afro-Caribbean patients, 14 were born in the UK and 34 in the West Indies; adequate information was unavailable in six. The age and sex distribution for the ethnic groups is given in Fig. 1. Afro-Caribbeans were significantly younger than the white British (mean ages 35.3 and 42.9 years respectively; Mann–Whitney, $P < 0.01$), more noticeably in males than females.

Similar proportions in both groups were married (25% and 27%) while 61% of Afro-Caribbeans and 53% of the white British group were single. Fewer Afro-Caribbeans were in first rather than subsequent marriages (10% and 15% respectively), with the converse for white patients (21% and 6% respectively). There were no differences in the number divorced (4% and 6%), separated (8% and 10%), or widowed (2% and 4%).

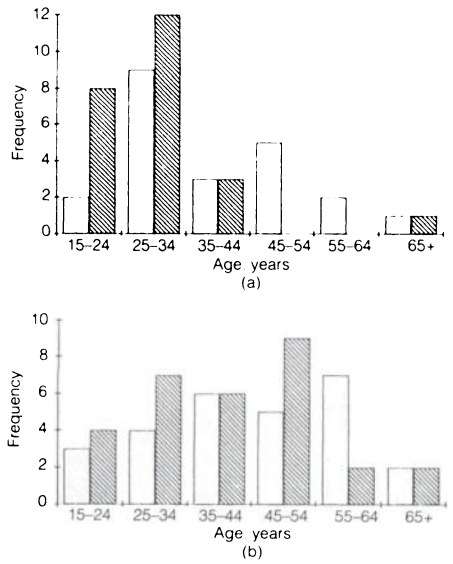

FIG. 1 Age distribution of indigenous British (□) and Afro-Caribbeans (▨) in (a) males and (b) females.

TABLE II
Admission rates for any functional psychosis per 100 000 per annum

Age group	*Afro-Caribbeans*	*White British*	*Relative risk for Afro-Caribbeans (95% CI)*
15–24 years	186 ($n = 9$)	58 ($n = 5$)	3.21 (1.07–9.54)
45–69 years	315 ($n = 11$)	155 ($n = 19$)	2.03 (0.97–4.29)

Rates of unemployment were higher in Afro-Caribbeans, being 76% and 56% in the two groups (s.e. of % difference = 9.17, $P < 0.02$), but previous occupational status was similar (most frequently lower-grade salaried professionals, clerical workers, lower-grade service workers, and semiskilled or unskilled manual workers). Only 4% and 10% in the groups were fully employed, with a further 2% and 6% full-time housewives, 6% and 8% in part-time jobs, 6% and 8% retired, and 6% and 12% registered sick.

Age-specific rates of admission to this hospital for any functional psychosis were calculated using data from the main sample, collected over 13 months, but excluding data for the 23 patients in the earlier pilot study. Rates in each ethnic group for the 15–24-year and 45–69-year age range, using the population estimates in Table I, are shown in Table II. In the Afro-Caribbean population the risk, relative to that of the white British, is seen to be 3.21 and 2.03 respectively, although the 95% confidence interval reaches unity. Admission rates were not calculated separately for each sex, or for schizophrenia alone, as numbers were too small.

Are there psychotic syndromes specific to the Afro-Caribbean group?

(a) In 35 Afro-Caribbean and 35 white British patients, matched for sex and RDC category (19 schizophrenic, 9 schizoaffective, 7 bipolar), a PSE syndrome profile was constructed to examine whether syndromal differences existed which cut across customary classification. Residual schizophrenia and self-neglect were rather less apparent in Afro-Caribbeans, along with depressive phenomena and grandiose/religious delusions. Auditory hallucinations appeared more frequently in Afro-Caribbeans, but overall there was close resemblance between the two groups and none of the above differences were significant. Sixty-nine of those 70 patients had a PSE Index of Definition of at least 5. The mean DAH score (total delusions and hallucinations) derived by CATEGO was identical for the two groups at 5.3.

Diagnosis according to ICD-9, DSM-III or RDC did not show any unexpected differences. Subsequent results relate to the RDC system unless otherwise stated, since DSM-III introduces certain duration criteria, which may

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TABLE III
Number of patients according to diagnosis, sex and ethnic group

RDC diagnosis	*Male*			*Female*			*Both sexes*		
	White British	*Afro-Caribbean*	*Total*	*White British*	*Afro-Caribbean*	*Total*	*White British*	*Afro-Caribbean*	*Total*
Schizophrenia	11	17	28	8	11	19	19	28	47
Schizoaffective	3	3	6	6	8	14	9	11	20
Bipolar	2	2	4	7	5	12	9	7	16
Major depression	3	0	3	5	4	9	8	4	12
Unspecified psychosis	3	2	5	1	2	3	4	4	8
Total	22	24	46	27	30	57	49	54	103

prove to differ between groups, and the ICD-9 diagnoses are less precisely defined.

Table III shows the relationship between ethnicity and diagnosis according to sex. It shows an excess of schizophrenia in the Afro-Caribbean group, particularly males. Excluding compulsory admissions does not abolish this trend, as the 15–34-year age group contains 11 Afro-Caribbeans and 7 white-British voluntary patients with schizophrenia.

This difference in admission numbers is only seen in those diagnosed schizophrenic and aged 15–34 (19 Afro-Caribbeans, 10 white British); similar numbers are apparent in other diagnoses, and for schizophrenia in those aged 45–69. However, allowing for the relative population size in the two age groups (the Afro-Caribbean : white-British ratio is 0.56 and 0.28 respectively), it is possible that there is a more diffuse Afro-Caribbean increase in terms of age and diagnosis. The male : female ratio is similarly elevated in both groups for schizophrenia (1.4–1.5).

(b) Comparing individual symptoms in just those patients with a diagnosis of RDC schizophrenia there was close similarity between the two groups. On PSE the Afro-Caribbean patients experienced more neutral and hostile auditory hallucinations (62% v. 39%, s.e. of % difference = 9.6, $P = 0.02$), and more partial delusions of control, while fantastic delusions were less common (5% v. 28%, s.e. of % difference = 7.1, $P = 0.01$). Differences at the PSE syndromal level were minimal. Examination of symptoms throughout their illness, using the SCL, supported the impression that abusive/persecutory auditory hallucinations were commoner in Afro-Caribbeans (67% v. 16%, s.e. of % difference = 8.26, $P < 0.001$), although persecutory delusions were of equal frequency. Negative and affective symptoms were similar in the two groups. In RDC schizophrenia the CATEGO class was NS+ in 42% and 53% respectively.

(c) Those 13 patients (7 Afro-Caribbeans and 6 white British) whose psychotic episodes had never exceeded two weeks in duration were examined to see if a brief psychosis specific to the Afro-Caribbean group was distinguishable. Their symptoms appear in Table IV. Affective and schizophrenic symptoms were simultaneously present in 7 of 13 patients. Using the RDC there were three with schizophrenia, six with schizoaffective and four with bipolar disorders; on DSM-III there were four schizoaffective, four schizophreniform/atypical, and five bipolar patients, while on ICD-9 there were three schizophrenic, two schizoaffective and eight manic-depressive (circular type) patients. There were no ethnic differences in symptoms or diagnoses, apart from delusions of reference which occurred in all seven Afro-Caribbean patients but only in two of six white British patients; this symptom showed a similar pattern in the total sample as well. Of the 13 only four were experiencing their first episode.

Twenty-eight patients with religious delusions were identified, using a positive rating on PSE Item 78 or 79, including 16 Afro-Caribbeans. Only four of these patients had their psychosis resolve within two weeks of its commencement. First-rank symptoms were present in six of 16 women and five of 12 men; seven of those 28 were Afro-Caribbean women without first-rank symptoms, of whom only one was married.

Age at index admission and at first onset of psychosis

Differences between the two groups on these variables were only observed for schizophrenia and bipolar diagnoses. As expected, male schizophrenics had an earlier onset than

TABLE IV
Symptoms in 13 patients with a brief psychosis (duration up to two weeks)

PSE item	*No. of patients with item present*	
Bizarre behaviour	7	
Delusions of reference	9	
Persecutory delusions	5	
Thought insertion	5	
Third-person hallucinations	4	
Affective symptoms	11	
elevated mood		10
irritable mood		8
overactivity		10
pressure of speech		9
distractibility		10
reduced need for sleep		9
initial insomnia		6
early morning wakening		5
loss of appetite		7

females (24.3 v. 34.7 years respectively; Mann–Whitney, $P<0.001$) and a similar pattern was seen for age at admission (29.8 v. 44.6 years respectively; Mann–Whitney, $P<0.005$). This sexual difference in age of onset was 10–11 years in both groups, although greater Afro-Caribbean numbers gave it significance in that group (21.5 years in males v. 32.2 years in females; Mann–Whitney, $P=0.004$) but not in the white British group (28.5 years in males v. 38.3 years in females; NS). For age at admission this difference was still apparent for both Afro-Caribbeans (mean difference of 13.3 years; Mann–Whitney, $P=0.02$) and white British patients (mean difference of 16.7 years; Mann–Whitney, $P=0.07$).

Schizophrenia in Afro-Caribbean patients overall had an earlier mean age of onset by 6.7 years compared with white British patients (25.9 years v. 32.6 years respectively; Mann–Whitney, $P=0.05$), which was reflected in their younger age at admission (33.0 years v. 39.8 years respectively; NS). A similar pattern was seen for each sex separately.

For bipolar disorders, Afro-Caribbean women were younger at admission (mean age 28.3 years v. 41.0 years; Mann–Whitney, $P=0.02$), but the two groups had a mean age of onset that was virtually identical (23.4 and 24.0 years respectively).

Episode onset and course of illness

Over the entire sample of 103 patients there were 16 with a first episode of psychosis, seven of whom were Afro-Caribbean. Twelve of these 16 were first episodes of schizophrenia (five Afro-Caribbeans).

In 35 patients there was no clear period of recovery from a previous psychotic episode, but in the remaining 68 the time between onset of the present episode (i.e. presence of definite psychotic symptoms) and admission was assessed. In 12 this was over six months, while in 35 it was under one month; average duration was similar for each sex and ethnic group. Only six of the 14 patients whose time from onset to admission was one week or less were Afro-Caribbean. There were only 13 patients with psychotic symptoms that lasted in total for two weeks or less, seven of whom were Afro-Caribbean.

Average in-patient stay for the index admission overall was 68.1 days for Afro-Caribbeans and 74.7 days for white British patients. Only in the schizoaffective subgroup was there any difference, with the latter having a mean duration of stay twice as long (30 days v. 66 days respectively; Mann–Whitney, $P=0.04$).

Following admission 31 were still showing psychotic phenomena at the time of discharge while 38 had resolved within two weeks of admission. Duration of delusions and hallucinations exceeded six months at any time in their illness in 39 with no significant ethnic differences in these indices of chronicity, nor in the mean duration of total in-patient stay, which was 11.9 months for Afro-Caribbean and 15.4 months for white British patients. The average number of admissions was 4.6 and 6.4 respectively.

Good symptom recovery between episodes, using a simple dichotomous rating, was estimated to have occurred in 32 of the Afro-Caribbean group and 21 of the white British group; good social recovery was somewhat lower, in 16 and 15 respectively.

Symptom response to neuroleptics was similar across the two groups, with an apparently complete response in 33 patients. However, persistent non-compliance was more frequent in Afro-Caribbean patients ($\chi^2=6.0$, d.f. = 1, $P<0.02$), in 16 of whom the index admission appeared closely related to such non-compliance, whereas this seemed true for only five of the white British group ($\chi^2=7.86$, d.f. = 1, $P<0.01$). Regarding this aspect of non-compliance the two groups were not judged to differ on ratings of poor rapport or lack of insight. Extrapyramidal side-effects (akathisia, dystonia, Parkinsonism and tardive dyskinesia) were equally frequent in both groups. A history of electroconvulsive therapy was less common in Afro-Caribbeans (9/47 v. 15/46; χ^2 NS).

Drug misuse

Illicit drug use was also examined as a possible confounding factor. While 22 of the Afro-Caribbean group acknowledged previous cannabis use only three admitted abusing other drugs; for the white British group 11 admitted abuse of drugs other than cannabis and only three specified cannabis use alone ($\chi^2=19.1$, 2 d.f., $P<0.001$). For 24 patients urine samples were taken on admission and these revealed only cannabis (i.e. negative for amphetamines, opioids, cocaine and barbiturates), which was present in 4 of 16 and 3 of 8 of the two groups respectively. Regular use of cannabis alone in the three months preceding admission was estimated to have occurred in 8 of the former and 3 of the latter. Only one escalated usage during this period, so that any regular use was largely continuance of a pre-existing steady habit.

Drug misuse in the form of a history of deliberate self-poisoning was only seen in one Afro-Caribbean patient but in 11 of the white British group ($\chi^2=7.7$, 1 d.f., $P<0.01$). Similarly a history of alcohol abuse was commoner in the latter (14/49 v. 2/54, $\chi^2=10.3$, d.f. = 1, $P<0.005$).

Family history

Finally, family history of any psychotic disorder in first- or second-degree relatives was examined. A family history of schizophrenia appeared in 6 of 54 of Afro-Caribbeans and 5 of 49 white British patients, of affective psychosis in two of each group, and of unspecified psychosis in four and two respectively. In total 12 and nine respectively had one or more first- or second-degree relatives with a history of psychosis. In the brief psychotic group four of 13 had such a family history.

Discussion

The main finding from this study is that Afro-Caribbean patients admitted to hospital with a functional psychosis are not distinguishable clinically from their white British counterparts. However, it is important to qualify this by the fact that differential

rates of referral and admission to hospital have been shown to exist for these two groups (Rwegellera, 1980; Harrison *et al*, 1984). This must preclude any generalisation from this study that such clinical differences do not exist in the general population. Lacking data about the proportion of psychotic patients in each group that do not get admitted, it is not possible to explore this issue further, but it should be borne in mind when evaluating these results.

Sociodemographic differences that were found included younger age at onset of schizophrenia and greater unemployment for Afro-Caribbean patients. However, the local Afro-Caribbean population is noticeably younger than the white British one, and this appears the most likely explanation for their earlier age at onset and admission for schizophrenia, as a lower proportion will have passed through the age range of maximum risk. Burke (1974) found that age of onset for schizophrenia in Jamaica was 25.9 years for males and 29.0 years for females.

Regarding the diagnosis and phenomenology of psychoses in Afro-Caribbean people there is considerable agreement here with the findings of Harrison *et al* (1988, 1989). Their sample comprised 42 Afro-Caribbean patients under the age of 55 with a first-onset functional psychosis, most but not all of whom received in-patient treatment, compared with 89 non-Afro-Caribbean cases from the general population. PSE profiles comparing these two groups for ICD–9 schizophrenia found no major differences to suggest an atypical psychosis phenomenologically. Affective symptoms were actually less frequent in the Afro-Caribbean group, contrary to what one might expect for a brief reactive psychosis. Our findings show a substantial similarity, using both a PSE profile that cuts across diagnostic boundaries and examining symptoms just within the schizophrenic group. In this sample Afro-Caribbean patients with schizophrenia experienced more auditory hallucinations, particularly those with a persecutory or hostile content. Increased auditory hallucinations in schizophrenia have been previously described for Afro-Caribbeans patients living in Camberwell (Chandrasena, 1980). Some evidence suggests that Afro-Caribbeans more commonly report auditory hallucinations in bipolar disorders also (Mukherjee *et al*, 1983).

Furthermore, in terms of duration, Harrison *et al* (1989) found half their Afro-Caribbean patients had had symptoms for at least six months before admission, comparable to the frequency observed here if those with unremitted symptoms from a previous episode were added to those with a definable onset. In that study a similar proportion of Afro-Caribbeans were single (60%), although there were more separated and divorced (25%) and fewer married or cohabiting (14%). In 21% of Afro-Caribbeans a family history of psychosis was elicited, close to the 23% seen in this sample although the latter included second-degree as well as first-degree relatives. They observed illicit drug use, mostly cannabis, in 40% but only in two cases was their psychosis attributed to it, which closely reflected our experience.

Older reports describe an acute atypical psychosis with prominent persecutory ideas and grandiose or religious delusions (Tewfik & Okasha, 1965; Gordon, 1965). However, Gordon noted that the first episode was within two years of immigration in 52% of cases, and only 5% had a family history of psychosis, suggesting a different patient group to that seen here. Littlewood & Lipsedge (1981*b*) also described a brief psychosis presenting typically in married Afro-Caribbean women with religious delusions but an absence of first-rank symptoms.

The present findings suggest that in both ethnic groups psychoses are inherently more pleomorphic if brief rather than sustained, and that there are no features specific to the Afro-Caribbean group, except perhaps more frequent delusions of reference. It may still be the case that a specific brief atypical psychosis does occur in Afro-Caribbeans but it seems unlikely on these results to be very common, and other explanations are possible. Firstly, over the course of two decades or more, the dominant culture has had a pathoplastic effect and delusional content approximates to that culture. Secondly, the changing and mixed phenomenology seen in these brief psychoses means that there is a greater chance of identifying 'atypical' patterns, particularly if the thought content associated with a different culture is novel; Littlewood & Lipsedge (1981*b*) themselves raise both of these possibilities. Unlike these authors we found no excess of brief psychosis in the Afro-Caribbean patients. Patients with religious or supernatural/magical delusions on the PSE were separately identified but again these did not cluster into either an Afro-Caribbean or brief psychotic group, even if first-rank symptoms were excluded. It is important to point out that those few patients who left the unit within three days of admission before inclusion in this study might have involved some with brief psychoses.

Carpenter & Brockington (1980) commented that the apparent increase in schizophrenia among Afro-Caribbean groups might arise from a paranoid psychosis that resembled schizophrenia but lacked first-rank symptoms and was demographically distinguishable. We failed to find support for such an explanation, although other authors agree that

first-rank symptoms are less frequent in Afro-Caribbean patients (Chandrasena, 1980; Ndetei & Vadher, 1984*a*) and that persecutory delusions are commoner (Ndetei & Vadher, 1984*b*). Rwegellera (1977) however has argued that the major psychotic syndromes are equally applicable to Afro-Caribbean patients.

The similarities observed across the two ethnic groups extended to features other than phenomenology, such as total length of hospital stay, number of admissions, neuroleptic response and degree of recovery.

The results given here for relative risk in the Afro-Caribbean population are undoubtedly crude estimates, but their function was only intended to provide a link, namely to see if these clinical findings pertained to a sample with some resemblance to the epidemiological studies noted above, since queries about misdiagnosis largely arose from the latter. Nonetheless, some support for these figures is available from Bebbington *et al* (1981), who studied the adjacent population of South Southwark using the Camberwell Register over 1971–78. For the age range 15–64 they found male Afro-Caribbean patients had 2.4 times the admission rate for schizophrenia compared with the white British population, after age correction. Rwegellera (1977) had previously used the same register over 1965–68 and found the inception rate for schizophrenia in the 15–24-year group to be almost nine times higher in Afro-Caribbeans than in the white British, remaining elevated to a lesser degree in older age groups also.

Regarding affective disorders, Leff *et al* (1976) reported higher rates of mania for Afro-Caribbeans in the Camberwell borough, and both Hemsi (1967) and Rwegellera (1977) showed a higher prevalence locally of affective disorders in general. Results from this sample show some support for the position that elevated admission rates for Afro-Caribbeans are not specific to one diagnosis, despite being most obvious for schizophrenia. A similar conclusion is drawn by Glover (1989), since Afro-Caribbean men born after 1952 were at increased risk of admission for affective as well as schizophrenic psychoses. He also found admission rates in young Afro-Caribbean adults of either sex were partly elevated by more frequent re-admissions, but we did not observe such an effect.

In conclusion, the puzzle persists as to which aetiological factors might explain different incidence and admission rates for schizophrenia in the Afro-Caribbean and white British populations. Differential application of that diagnosis is a plausible explanation but has not yet been substantiated.

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