Increased first-contact rates for very-late-onset schizophrenia-like psychosis in African- and Caribbean-born elders

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Background Studies have consistently shown a higher incidence of schizophrenia with onset in early adult life in African and Caribbean migrants to the UK.

Aims To establish the incidence (first-contact rates) of very-late-onset (>60 years) schizophrenia-like psychosis (SLP) in south London and to test the hypothesis that this is higher among African- and Caribbean-born than indigenous elders.

Method We identified all new referrals of SLP to the Maudsley Hospital between 1995 and 2000. Demographic details, including age, ethnicity and electoral ward (address), were obtained from case notes. Incidence was estimated using 1997 census data to determine the denominator population for each ethnic group.

Results The incidence of SLP was significantly higher in African- and Caribbean-born than indigenous elders: 172.4 per 100 000 population (95% CI=57.9–286.8) in African- and Caribbean-born males and 323.5 per 100 000 population (95% CI 167.8–479.1) in African- and Caribbean-born females. Rates also were increased in elders from other immigrant groups, but the numbers involved were too small to reach accepted levels of significance.

Conclusions Large-scale epidemiological studies are needed to determine both the incidence of and the coexistent risk factors for SLP among all elderly migrants, who may constitute a group with high service needs.

Declaration of interest None.

Over the past three decades, studies have consistently shown a higher incidence of schizophrenia among African and Caribbean migrants to the UK in comparison with the indigenous population (McGovern & Cope, 1987; Harrison *et al*, 1997). This does not appear to be explained by misdiagnosis (Hickling & Rodgers-Johnson, 1995), admission bias (Bebbington *et al*, 1981) or underestimation of the denominator population (King *et al*, 1994; Van Os *et al*, 1996; Bhugra *et al*, 1997). High rates of schizophrenia have been shown in some populations of older African and Caribbean patients (>65 years), although studies have failed to differentiate cases according to age of onset (Redlinghuys & Shah, 1997; Odutoye & Shah, 1999). Epidemiological data on the late-onset psychoses are scarce, in part owing to controversies over classification and nosology. The incidence of late-onset schizophrenia (onset of illness at over 40 years of age) (Howard *et al*, 2000) has been reported at 12.6 per 100 000 population per year (Copeland *et al*, 1998). The incidence of very-late-onset schizophrenia-like psychosis (SLP) (onset of illness at over 60 years of age) (Howard *et al*, 2000) is 17–24 per 100 000 population (Holden, 1987); in addition, incidence is positively correlated with age, increasing by 11% for every 5-year increase in age (Van Os *et al*, 1995).

METHOD

Sample

All new referrals (>65 years) to Old Age Psychiatry Services at the Maudsley Hospital, London, over a 5-year period (April 1995–April 2000) were examined. Patients were identified from initial summary letters, liaison with multi-disciplinary team members and by cross-reference with in-patient data. For all patients identified, case notes were reviewed to verify the diagnosis and to obtain demographic details, including ethnicity (recorded as place of birth). The diagnosis of SLP was made only if strict criteria were satisfied (see Appendix). Ethnic group was assigned using the Office for National Statistics classification (Sillitoe, 1987). For the study analysis, this classification was simplified into three categories: British-born, African- and Caribbean-born (Black African, Black Caribbean, Black Other), and 'Other' (all other immigrant groups, including Irish, Polish, Asian, Vietnamese). Electoral ward was assigned using address at the time of referral. The denominator population (>65 years) for each ethnic category within each electoral ward was calculated using census data from the 1997 Office for National Statistics Mid-year Estimates (see Schuman, 1999).

Statistics

First contact rates of SLP (including 95% confidence intervals) were calculcated from 1997 census data on the relevant denominator population.

RESULTS

First contact rates of schizophrenia-like psychosis

A total of 75 SLP patients were referred between April 1995 and April 2000. Of these, three (one male, two females) were excluded because they lived out of the area at the time of referral. Of the 61 remaining, 25 patients (41%) were British-born, 26 (42.6%) were African- and Caribbean-born and 10 (16.4%) came from 'Other' immigrant groups. Incidence (first-contact) rates of SLP per 100 000 population, with 95% confidence intervals, are shown in Table 1. The rate of SLP was significantly higher in African- and Caribbean-born than in British-born elders; 12 times higher in females and 24 times higher in males. Rates of SLP in 'Other' immigrant elders also appeared higher than in British-born elders; confidence intervals, however, were wide owing to small numbers in the denominator population, and the findings therefore were not significant.

First-contact rates of non-psychotic disorders

It was possible that service contacts for African- and Caribbean-born elders were overrepresented for all psychiatric diagnoses in our original sample, owing to

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Table 1 Schizophrenia-like psychosis (SLP): first contacts, April 1995–April 2000

Sample group	Total population	Number of patients with SLP	Annual first-contact rates of SLP (95% CI)
Total males	12 369	17	27.4 (14.1–40.8)
Total females	18 184	44	48.3 (33.8–63.0)
British-born males	11 099	4	7.21 (0.001–14.4)
British-born females	16 790	21	25.01 (14.1–35.9)
African- and Caribbean-born males	1044	9	172.4 (57.9–286.8)
African- and Caribbean-born females	1051	17	323.5 (167.8–479.1)
'Other' males	226	4	353.9 (3.1–704)
'Other' females	343	6	349.8 (66.7–632.9)

selective bias on the part of local referrers. To investigate this we examined all new referrals over a 1-year period (1999) to determine the proportion of African- and Caribbean-born elders referred with non-psychotic disorders. There were 378 new referrals in 1999, of which 189 (50%) case notes were selected randomly for review. Of the 173 referred with non-psychotic disorders, the diagnostic categories were as follows: dementia/organic disorders (including alcohol misuse), 57.8%; affective/anxiety disorders (including obsessive–compulsive disorder), 37.5%; other psychiatric diagnoses (including adjustment reaction, personality disorder and 'no psychiatric diagnosis'), 8%. Contact rates for dementia/organic disorders were twice as high in African- and Caribbean-born than in British-born elders (2.3 times higher in African- and Caribbean-born females and 2.1 times higher in males). This is comparable with previous data (McCracken *et al*, 1997). In contrast, contact rates for depression/anxiety disorders were 2.3 times higher in British-born than in African- and Caribbean-born males, with no differences being seen between females in the two groups.

DISCUSSION

Case ascertainment

Misdiagnosis was highly unlikely in our sample because strict diagnosis criteria were used to identify patients with SLP. The use of out-patient first-contact data, although avoiding biases secondary to hospitalisation policies, inevitably underestimates the true incidence of SLP in the community because many elderly patients with paranoia do not seek help (Christenson & Blazer, 1984). There is, however, no reason to assume that this bias is greater for indigenous elders than for African- and Caribbean-born migrants. Bias on the part of local referrers appears unlikely because referral rates for non-psychotic disorders were not disproportionately increased in African- and Caribbean-born elders. It is possible, however, that referral bias was diagnosis-specific.

Population denominator data

It is possible that census data underestimated the African/Caribbean denominator population, but this would need to have occurred by a factor of 10 to explain the observed differences and is highly unlikely (Schuman, 1999).

Risk factors for schizophrenia-like psychosis

First-contact rates were calculated separately for males and females in the sample, thus avoiding gender-related bias. Our findings of a higher contact rate of SLP among females from all ethnic groups support previous data on gender-related risk (Howard *et al*, 2000). Considering age as a risk factor for SLP (Van Os *et al*, 1995), data have shown all migrant groups to have a younger age profile than the indigenous population (Schuman, 1999). We may therefore be underestimating the incidence rates of SLP among both African- and Caribbean-born and other immigrant elders from our sample.

First-contact rates of schizophrenia-like psychosis

To our knowledge, this is the first study to examine first-contact rates of SLP among different ethnic groups. The general paucity of data on SLP is a reflection of both the difficulties relating to classification and the exclusion of those over 60 years old from many epidemiological studies of psychotic disorders (Howard *et al*, 2000). Our findings suggest that African- and Caribbean-born elders have a significantly higher incidence of SLP than their indigenous counterparts. Higher rates of SLP also may be present in other immigrant elders, suggesting a pattern similar to that seen in young adults (Hitch & Rack, 1980; Bebbington *et al*, 1981; King *et al*, 1994; Bracken *et al*, 1998), but numbers were too small to allow accurate interpretation. It is unclear, therefore, whether specific risk factors relate to African- and Caribbean-born migrants or whether common environmental risk factors exist among all immigrant elderly groups. Certainly, epidemiological data suggest that social isolation, deprivation and physical ill health are more common among migrant populations (Hitch & Rack, 1980; Schoenbaum & Waidmann, 1997; Bracken *et al*, 1998; Silveira & Ebrahim, 1998; Burnett *et al*, 1999). There is evidence also that migrants of African and Caribbean origin may be more compromised than others with respect to social isolation, because a higher proportion live alone (Burnett *et al*, 1999; Schuman, 1999) and they are more likely to have earlier experiences of social exclusion owing to unemployment (Bhugra *et al*, 1997). Large-scale epidemiological research is needed to explore socio-economic differences between elderly migrant populations and to determine their relationship with SLP.

APPENDIX

The criteria for very-late-onset schizophrenia-like psychosis are:

(a) Onset of symptoms over the age of 60 years.

(b) Presence of fantastic, persecutory, referential or grandiose delusions, with or without hallucinations.

(c) Absence of primary affective disorder.

(d) Intellectual capacity in keeping with that of normal ageing: Mini-Mental State Examination (MMSE) no less than 25/30.

(e) No clouding of consciousness.

(f) No history of neurological illness/alcohol dependence.

(g) Normal haematological/biochemical screen (including Venereal Disease Research Laboratory).

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CLINICAL IMPLICATIONS

- African- and Caribbean-born elders are a vulnerable group in terms of their risk of developing organic and functional mental illness. This has implications for future service provision.
- The increased rate of psychosis in African- and Caribbean-born elders is comparable to that described previously in younger African and Caribbean adults born in the UK.
- Co-existent risk factors and prognostic indicators for schizophrenia-like psychosis (SLP) need to be evaluated in African- and Caribbean-born and other migrant populations.

LIMITATIONS

- Out-patient referral data provide information only about those in contact with mental health services.
- The number of individuals with SLP from other immigrant groups was too small to allow interpretation of results.
- Data on co-existent risk factors for psychosis were unavailable.

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