Psychosis with good prognosis in Afro-Caribbean people now living in the United Kingdom

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Abstract

***Objectives*—To compare the course and outcome of psychotic illness in a group of Afro-Caribbean patients resident in the United Kingdom and a group of white British patients.**

***Design*—Cohort study of consecutive admissions followed up for four years.**

***Subjects*—113 patients with psychotic illness of recent onset admitted to two south London hospitals.**

***Main outcome measures*—Course of illness, history of self harm, social disability, treatment received, and hospital use adjusted for socioeconomic origin.**

***Results*—The Afro-Caribbean group spent more time in a recovered state during the follow up period (adjusted odds ratio 5·0; 95% confidence interval 1·7 to 14·5), were less likely to have had a continuous illness (0·3; 0·1 to 0·8), were less at risk of self harm (0·2; 0·1 to 0·8), and were less likely to have been prescribed antidepressant treatment (0·3; 0·1 to 0·9). There were no differences in hospital use, but the Afro-Caribbean group had more involuntary admissions (8·9; 2·1 to 35·6) and more imprisonments over the follow up period (9·2; 1·6 to 52·3).**

***Conclusions*—Afro-Caribbean patients in the United Kingdom have a better outcome after psychiatric illness than do white people. The combination of high incidence and more benign course of illness of psychotic illness in this group may be due, at least in part, to a greater exposure to precipitants in the social environment.**

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Introduction

Several cross cultural studies have shown that the prognosis of psychotic disorders such as schizophrenia is better in non-industrialised countries.[1] Some researchers have questioned whether people of Caribbean origin living in the United Kingdom have a similarly good prognosis and whether the reported increased incidence of psychosis in this group could be due to an excess of illness of good prognosis.[2,3]

Follow up studies set up to test this hypothesis have now shown better outcome for people of Caribbean origin when compared with white British or white European subjects.[3-5] These studies, however, have had limited power because of small numbers of patients, retrospective study designs,[3,4] or short follow up periods.[5] The studies have not controlled for confounders such as social class or age at onset of illness.[3-6] They have also relied on cross sectional clinical information rather than on longitudinal clinical data from the whole follow up period.

None of the studies have prospectively investigated self harm, even though this is an important outcome measure in which ethnic differences may be expected.[7-9]

We report on a prospective study of patients with psychosis comparing the course and outcome in people of Caribbean origin and white British people. Cross sectional assessments of outcome are supplemented by longitudinal measures over the whole follow up by using multiple sources of information.

Method

A survey of all admissions for psychosis to two south London psychiatric hospitals was performed during a pilot study in 1985 and from March 1986 to February 1988 and October 1988 to August 1989. To limit the eligible patients to a number manageable by two interviewers admissions from each hospital were excluded every third month in rotation. All patients were assessed for inclusion within three days after admission. Inclusion criteria were age 16-60 years and presence of delusions, hallucinations, or formal thought disorder as defined by the research diagnostic criteria,[10] in clear consciousness.

At least one first degree relative was contacted to obtain corroborative information.

Patients whose illness had started within five years of recruitment were selected for the four year follow up study (n=191). Thus, a sample was obtained of relatively recent onset of illness, minimising the fallacy of mixing follow up epochs which has a confounding effect.[11]

SOCIODEMOGRAPHIC AND BASELINE ASSESSMENTS

The registrar general's classification of paternal occupation at birth was used to assess socioeconomic status in early childhood. Place of birth and place of parents' birth were used as proxy variables to define different "ethnic" groups. Patients were asked their place of birth and their parents' place of birth. Those patients who were white skinned, who were born in the United Kingdom, and whose parents were born in the United Kingdom comprised the white group, and those who had both parents born in the Caribbean constituted the resident group of Caribbean origin (which we will call the Afro-Caribbean group). The aim was to compare the Afro-Caribbean group with an as culturally homogeneous white group as possible to decrease difficulties in interpeting results which may be consequent on including other ethnic groups in the white group.

Age at onset of illness was defined as age at which psychotic symptoms first emerged; duration of illness was defined as the time between age at onset and follow up. The operational criteria checklist for psychotic illness[12] was completed on all patients for the time up to the baseline assessment to give a diagnosis by using computerised algorithms. Psychopathological data were derived from detailed cross sectional assessment of mental states at baseline, based on the present state examination,[13] and from the patients' records.

FOLLOW UP

The method and rationale for the follow up proce-

dures, outcome measures, and treatment measures have been described in detail elsewhere.[14 15] Briefly, follow up data were collected by JvO, blind to all index data. To test the hypothesis that outcome of psychiatric illness is a multidimensional concept[16] a factor analysis was conducted of all 21 outcome ratings to identify different clinical and social outcome domains.[15] The domains identified were negative symptoms and social disability; severity of course of illness; time living independently; unemployment; imprisonment and vagrancy; and depression and self harm. Rather than calculating factor scores for each domain, the meaning of which is difficult to appreciate in relation to clinical practice, we identified 13 outcome measures chosen a priori, before this paper was conceived, to represent these different outcome domains (see table II).[15]

Instruments used were the Iager scale for the assessment of negative symptoms,[17] the World Health Organisation (WHO) disability assessment schedule,[18] the Hamilton depression scale,[19] and a modified version of the WHO life chart,[20] which assesses longitudinally employment, independent living and hospitalisation, self harm, and treatments received. It also assesses severity of course of illness by using clear definitions for all ratings. Course was rated as continuous (no remission longer than six months), neither episodic nor continuous, episodic (no episode longer than six months), and not psychotic in this period. A "usual severity of symptoms" rating indicates the symptomatic level of the patient during most of the follow up period. Ratings were severe, moderate, mild, or recovered. Self harm included all attempts at self harm regardless of the outcome (that is, both parasuicide and completed suicide were included).

Data on five areas of treatment over the follow up were collected (see table II). Treatments were time on antipsychotic drugs and whether the patient had had an antidepressant, mood stabilising medication, psychotherapy, or rehabilitation over the follow up period.

Multiple sources of information were used for the follow up assessments and, when possible and with the subject's permission, general practitioners, family members, spouses, hospital and hostel staff, and case notes were consulted (median (range) number of informants 2 (0-3)).

TABLE I—*Characteristics at baseline of sample in Afro-Caribbean and white British people with psychoses*

Characteristic	Afro-Caribbean group (n=53)	White British group (n=60)
Female	16/53 (30·2%)	19/60 (31·7%)
Parental class:		
I/II	5/49 (10·2%)	20/57 (35·1%)
III	15/49 (30·6%)	23/57 (40·4%)
IV/V	29/49 (59·2%)	14/57 (24·6%)*
Illness:		
Mean age (years) of onset	22·8	24·3
Mean duration (years)	2·8	3·1
Disorders:		
Schizophrenia	27/53 (51%)	27/60 (45%)
Schizoaffective disorder	3/53 (5·6%)	5/60 (8·3%)
Affective psychosis	15/53 (28·3%)	12/60 (20%)
Atypical psychosis†	8/53 (15·1%)	16/60 (26·7%)
Mean (range) length of follow up (months)	49·2 (26-77)	43·9† (3-76)

*χ^2 Test for linear trend $P<0·001$. †χ^2 Test $P<0·05$.

TABLE II—*Ethnic group and dimensions of course and outcome, scales used to cover these, and treatment variables*

Dimension of course and variable used	Afro-Caribbean group* (SD or %)	White British group (SD of %)	Difference (95% confidence interval)
Negative symptoms/disability:			
Mean Iager scale weighted score†	2·0 (0·9)	1·9 (1·0)	0·1 (−0·3 to 0·5)
Mean score† on disability assessment schedule	2·3 (1·2)	2·2 (1·2)	0·1 (−0·4 to 0·6)
Negative symptoms usually present	28/52 (53·8%)	31/57 (54·3%)	−0·5% (−1·9 to 1·8)
Illness severity:			
Non-remitting illness course	21/53 (39·6%)	32/60 (53·3%)	−13·7% (−32·0 to 4·5)‡
Usual symptom severity "recovered"	31/53 (58·5%)	22/60 (36·7%)	21·8% (3·8 to 39·8)§
Time living independently:			
Mean time in hospital	16·1 (17·7)	18·8 (23·6)	−2·7 (−10·6 to 5·2)
Mean time living independently	73·7 (30·6)	69·1 (36·1)	4·6 (−8·0 to 17·2)
Unemployment:			
Mean time unemployed	59·3 (36·7)	48·5 (35·5)	10·8 (−2·7 to 24·3)
Employed at follow up	13/52 (25%)	19/57 (33·3%)	−8·3% (−25·3 to 8·7)
Imprisonment/vagrancy:			
Imprisonment over follow up period	12/53 (22·6%)	2/58 (3·5%)	19·2% (7·0 to 31·4)
Vagrancy over follow up period	4/53 (7·6%)	1/58 (1·7%)	5·8% (−2·0 to 13·7)
Depression/self harm:			
Self harm over follow up period	4/53 (7·6%)	17·59 (28·8%)	−21·3% (−34·8 to −7·7)‖
Mean score on Hamilton depression scale†	4·8 (4·4)	5·2 (4·4)	−0·4 (−2·2 to 1·4)
Treatment variables:			
Prescribed antidepressants over follow up period	7/53 (13·2%)	20/60 (33·3%)	−20·1% (−35·1 to −5·1)‖
Prescribed lithium over follow up period	13/53 (24·5%)	21/60 (35%)	−10·5% (−27·2 to 6·3)
Time on antipsychotics	63·8 (31·1)	59·8 (38·7)	4·0 (−9·2 tp 17·2)
Involuntary admission over follow up period¶	33/40 (82·3%)	16/37 (43·2%)	39·3% (19·4 to 59·1)
Rehabilitation over follow up period	11/53 (20·8%)	10/59 (17·0%)	3·8% (−10·7 to 18·3)
Psychotherapy over follow up period	1/53 (1·9%)	9/60 (15·0%)	−13·1% (−22·9 to −2·4)‖

*Continuous variable: mean (geometric mean for log transformed distributions); binary variables:proportions.
†Higher scores indicate greater severity.
‡$P\leq0·1$. ‖$P\leq0·01$.
§$P\leq0·05$. ¶Among those who were readmitted only.

Results

SAMPLE

Of the 191 patients, follow up data were available for 166 (87%). Of these 166, 53 were in the Afro-Caribbean group and 60 in the white group. All further analyses refer to these two groups. The Afro-Caribbean group was of lower socioeconomic origin, and the length of follow up was slightly longer (table I). The range of follow up was wider in the white group because of patients who had committed suicide. There were no large or significant differences between the two groups on any of the psychopathological measures collected at baseline (data not shown), and there was no ethnic bias in attrition as we reported previously.[14 15]

ASSOCIATIONS WITH ETHNICITY

Six of the 19 variables comparing outcome and treatment were significantly different between the two ethnic groups. There were large differences between the two groups in three outcome dimensions: patients in the Afro-Caribbean group were more likely to be rated as "recovered" over the follow up period, and there was a trend to have had a non-continuous course of illness. The Afro-Caribbean group were less likely to have displayed evidence of self harm and were more likely to have been imprisoned. Three differences in treatment were apparent: patients in the Afro-Caribbean group were less likely to have received psychotherapy and antidepressant treatment and were more likely to have been admitted involuntarily over the follow up period (table II)

ADJUSTMENT FOR CONFOUNDING FACTORS

Adjustment for age of onset and childhood social class revealed substantial confounding by these variables. The magnitude of the associations between

ANALYSES

The means of continuous variables and the proportions for binary variables were compared between the two ethnic groups. Means were adjusted by using multiple regression and proportions by using logistic regression, yielding odds ratios. Variables measuring time—for example, time spent in hospital, time unemployed, etc—were expressed as the proportion of the length of the individual follow up period. As described previously[14 15] skewed variables that inclined towards two clinically meaningful categories were dichotomised by using the modal value as the cut off. For example, course of illness was transformed into "continuous" (continuous) and "non-continuous" (neither episodic nor continuous, episodic, and not psychotic), and usual severity of symptoms into "recovered" (recovered) and "non-recovered" (mild, moderate, and severe).

TABLE III—*Associations between ethnic group and course of illness, and effect of confounding factors. Results are shown for those outcomes and treatment variables which show significant differences between ethnic groups. Effects are presented as odds ratios (95% confidence intervals) from the logistic regression analysis*

Variable	Afro-Caribbean *v* white British (unadjusted)	Afro-Caribbean *v* white British (adjusted for class and age of onset)	Afro-Caribbean *v* white (adjusted for class, age of onset, diagnosis, sex, length of follow up, and catchment area)
Non-remitting course of illness	0·6 (0·3 to 1·2)	0·3 (0·1 to 0·8)	0·2 (0·1 to 0·8)
Usual severity of symptoms "recovered"	2·4 (1·1 to 5·2)	5·0 (1·7 to 14·5)	7·2 (2·0 to 25·7)
Imprisonment over follow up period	8·2 (1·7 to 38·6)	9·2 (1·6 to 52·3)	18·5 (2·2 to 155·2)
Prescribed antidepressants over follow up period	0·3 (0·2 to 0·8)	0·3 (0·1 to 0·9)	0·3 (0·1 to 0·9)
Self harm over follow up period	0·2 (0·1 to 0·7)	0·2 (0·1 to 0·8)	0·2 (0·1 to 0·7)
Involuntary admission over follow up period	6·2 (2·2 to 17·6)	8·9 (2·1 to 35·6)	9·0 (2·6 to 31·3)
Psychotherapy over follow up period	0·1 (0·01 to 0·9)	0·2 (0·02 to 1·4)	0·2 (0·01 to 1·6)

ethnic group and measures of severity of course of illness doubled after accounting for their effects. Associations between ethnic group and imprisonment and involuntary admission over the follow up period were similarly affected. Additional adjustment for catchment area status, *Diagnostic and Statistical Manual of Mental Disorders*, third edition, revised (DSM-III-R) diagnosis, sex, and length of illness further increased the magnitude of the associations (table III). After adjustment for class and age at onset the Afro-Caribbean group were 0·3 times as likely to have had a continuous course of illness and 5·0 times as likely to have had a usual severity of symptoms of "recovered." The odds of the Afro-Caribbean group having evidence of self harm or having been prescribed antidepressants was decreased by factors of 0·2 and 0·3, respectively; the risk of imprisonment and involuntary admission over the follow up period was increased by factors of 8·2 and 6·2, respectively.

The effect of socioeconomic origin on these variables was in the opposite direction for the clinical outcome measures. Social class was significantly associated with both course of illness and usual severity of symptoms such that over three levels of socioeconomic origin (I/II, III, and IV/V) the risk of continuous illness increased by a factor of 2·4 with each level, and the probability of a usual symptom severity of "recovered" decreased by a factor of 0·5 with each level.

There were no large or significant interactions with DSM-III-R diagnosis, and differences were similar for subjects from the Afro-Caribbean group born outside or inside the United Kingdom, suggesting that neither diagnosis nor migration are significant modifiers of the association between ethnicity and outcome.

Discussion

Our findings give a necessarily complex picture of the outcome of psychosis in people of Caribbean origin resident in the United Kingdom when compared with white people. There is better prognosis with regard to severity of symptoms, course of illness, and self harm, but there is poorer prognosis with regard to outcomes dependent on social factors and services such as the use of sections of the Mental Health Act and time spent in jail.

METHODOLOGICAL ISSUES

Face to face interviewing meant the rater was not blind to ethnic status, but the mix of poorer and better outcomes found in the Afro-Caribbean group is not suggestive of systematic bias.

The comparatively large changes in the ethnicity parameters in analyses (more than 200% in some instances) after adjusting for socioeconomic origin and other variables show that ethnicity is a complex variable which is substantially confounded. It should lead one to be cautious in interpreting "ethnic" differences.

Some researchers have questioned whether a proportion of patients of Caribbean origin are wrongly diagnosed as suffering from schizophrenia.[21] We included any patients with broadly defined psychosis, which reduces the risk of misclassification associated with one particular diagnostic category. Furthermore, detailed structured psychopathological interviews failed to demonstrate differences in symptoms between the two ethnic groups.

INTERPRETATION OF FINDINGS

The link between social adversity and prognosis is not straightforward. Though lower social class is associated with poorer outcomes from established illness, the presence of environmental precipitants ("life events") predicts better prognosis.[22,23] The better prognosis (with regard to symptoms and course) demonstrated in the Afro-Caribbean group may be due to a higher prevalence of illness with social precipitants. Previous studies may have failed to show this relatively good prognosis because of the confounding effect of social class.

Despite favourable symptom and course indices, patients in our Afro-Caribbean group were still more likely to be admitted under a section of the Mental Health Act and more likely to have been in jail but spend similar amounts of time in hospital as white patients. Our study suggests that this may not always be related to the clinical state of the patient.

This is the first prospective study to show ethnic differences in self harm in a psychotic sample. The Afro-Caribbean group were less at risk of self harm than white patients, but the increasing incidence of self harm in the wider population of people of Caribbean origin in the United Kingdom[9] may result in attenuation of the protective effect conferred by ethnic group.

Key messages

- People of Caribbean origin with psychosis who live in the United Kingdom spend more time in remission and are less likely to have a continuous psychotic illness in the early course of their illness than their white British peers
- Both the increased incidence and the better prognosis of psychosis in people of Caribbean origin may be due, at least in part, to excess exposure to social precipitants
- The four year risk of self harm in people of Caribbean origin with psychosis is lower than in white people, but the increasing incidence of self harm in the wider Afro-Caribbean population may lead to an attenuation of the protective effect conferred by ethnic group
- Being of lower social class is associated with progressively more deteriorated course of illness in the functional psychoses

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Cognitive behavioural therapy for medically unexplained physical symptoms: a randomised controlled trial

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Abstract

***Objective*—To examine the additional effect of cognitive behavioural therapy for patients with medically unexplained physical symptoms in comparison with optimised medical care.**

***Design*—Randomised controlled trial with follow up assessments six and 12 months after the baseline evaluation.**

***Setting*—General medical outpatient clinic in a university hospital.**

***Subjects*—An intervention group of 39 patients and a control group of 40 patients.**

***Interventions*—The intervention group received between six and 16 sessions of cognitive behavioural therapy. Therapeutic techniques used included identification and modification of dysfunctional automatic thoughts and behavioural experiments aimed at breaking the vicious cycles of the symptoms and their consequences. The control group received optimised medical care.**

***Main outcome measures*—The degree of change, frequency and intensity of the presenting symptoms, psychological distress, functional impairment, hypochondriacal beliefs and attitudes, and (at 12 months of follow up) number of visits to the general practitioner.**

***Results*—At six months of follow up the intervention group reported a higher recovery rate (odds ratio 0·40; 95% confidence interval 0·16 to 1·00), a lower mean intensity of the physical symptoms (difference −1·2; −2·0 to −0·3), and less impairment of sleep (odds ratio 0·38; 0·15 to 0·94) than the controls. After adjustment for coincidental baseline differences the intervention and control groups also differed with regard to frequency of the symptoms (0·32; 0·13 to 0·77), limitations in social (0·35; 0·14 to 0·85) and leisure (0·36; 0·14 to 0·93) activities, and illness behaviour (difference −2·5; −4·6 to −0·5). At 12 months of follow up the differences between the groups were largely maintained.**

***Conclusion*—Cognitive behavioural therapy seems to be a feasible and effective treatment in general medical patients with unexplained physical symptoms.**

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Introduction

Many patients are seen in clinical practice with physical symptoms for which no medical explanation can be found. In one study among 191 new referrals to a general medical outpatient clinic the prevalence of medically unexplained symptoms was 52%.[1] Compared with patients with medical diagnoses, more of those with unexplained symptoms had psychiatric disorders. The association between unexplained symptoms and psychiatric disorder suggests that psychological therapy might be effective in patients with unexplained complaints.

A general cognitive-behavioural therapy of functional somatic symptoms was described by Sharpe *et al.*[2] We assessed the additional effect of cognitive behavioural therapy for unexplained physical symptoms compared with optimised medical care. The patients studied were those identified in a general medical outpatient clinic as having persistent unexplained symptoms after medical assessment and reassurance.

Patients and methods

GENERAL OUTPATIENT POPULATION

From March 1992 till March 1993 consecutive patients referred to the general medical outpatient clinic of Leiden University Hospital were invited to take part. Only Dutch natives aged 18-64 were included. At the initial visit patients were asked to complete the general health questionnaire[3,4] and a checklist of somatic symptoms.[1]

PATIENTS WITH UNEXPLAINED PHYSICAL SYMPTOMS

After the diagnostic process was completed the physicians in charge of the patients were asked whether they had found any organic abnormalities that could be related to the presenting symptoms. Patients with unexplained symptoms were interviewed by one of us (AS or AvH). Information was gathered on sociodemographic characteristics and the main presenting symptoms. The present state examination[5,6] was used to assess psychiatric disorder.

Patients indicated the frequency of the presenting symptoms during the preceding month on a five point Likert scale ranging from 0 (not at all) to 4 (continually) and the mean and maximal intensities on numerical analogue scales ranging from 1 (none) to 10 (unbearable). Psychological distress was assessed with the hospital anxiety and depression scale.[7] Functional impairment was evaluated with the household, social interaction, work, recreation, and sleep subscales of the sickness impact profile.[8,9] In addition, patients were asked to rate limitations in these areas and total functional impairment on numerical analogue scales ranging from 1 (not affected) to 10 (could not be more affected). Hypochondriacal beliefs and attitudes were measured with the health anxiety and illness behaviour