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Neuropsychiatric disorders in Nigerians: 1914 consecutive new patients seen in 1 year

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Summary

The socio-demographic attributes and the different diagnostic categories of patients attending Aro Neuropsychiatric Hospital for the first time over a 1-year period are presented. There was an overall preponderance of males but more females than males suffered from depression. Factors which distinguished patients with anxiety neurosis from those with neurotic and endogenous depression are identified. Two patients who suffered from obsessional neurosis, commonly regarded as rare in the black Africans, are described. Heredo-degenerative diseases of the nervous system are rare in the Africans and one patient with hereditary spinocerebellar degeneration is described. Eclampsia was a probable predisposing factor for epilepsy in four women.

Résumé

On a présenté les attributs socio-démographiques et les différences catégories diagnostiques des malades qui viennent à Aro Neuropsychiatric Hospital pour la première fois pendant une periode d'un an. Il y avait une prépondérance d'hommes, mais plus de femmes ont souffert de la dépression. On a identifié les éléments qui distinguaient les malades avec la neurose inquiète de ceux avec la dépression neuroses et 'endogenous'. On a décrit deux malades qui souffraient d'une neurose obsédée, considerée ordinairement rare parmi les Africans noirs. On dit que les maladies hérédo-dégénératives du système nerveux sont aussi rares parmi les Africains, et on décrit un malade avec la dégénération héréditaire spinocérebellaire. L'éclampsie était un élément qui prédisposait à l'épilepsie dans quatre femmes.

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Introduction

The short but impressive path that neuropsychiatry has traversed in Africa is littered with the splinters of broken myths. The image of the 'happy savage' created by the results of early studies which suggest low psychiatric morbidity among black Africans [1,2] has been proven to be false [3–6]. Neuroses were once thought to be uncommon in the Africans [1]; however, recent evidence suggested the opposite [7,8]. The view that Africans did not commonly experience guilt as part of depressed symptomatology [9–12], supposedly due to a 'lack of responsibility' [1] is not supported by recent evidence [8,13]. Migraine, thought to be a disease of civilized people and rare in Africans [14] has been shown to be as common in rural Africans as in developed countries [15].

Data obtained from hospitals can be notoriously deceptive in giving a correct picture of the pattern of diseases in the community. However, in most African countries where properly conducted community based studies are few [16], hospital-based studies could provide some data which, although it may not satisfy the purist, may guide in planning health-care services especially in mental health. Besides, hospital-based studies remain valuable in an area where many disease entities have yet to be properly identified and described [17]. For example, the belief that there is a 'relative absence of self-directed and self-centered symptoms such as notions of worthlessness and guilt, and obsession–compulsive rituals' in the

African [6] makes it worthwhile to report, when it is found, obsessional neurosis in Nigerian Africans.

This communication provides information in some areas of neuropsychiatry in black Africa, describes the socio-demographic data and the diagnostic rubrics of patients attending a specialist neuropsychiatric hospital in Nigeria over a 1-year period for the first time.

The Hospital

The Neuropsychiatric Hospital, Aro, Abeokuta is in Ogun State of Nigeria. Established in 1944, it is the second oldest mental hospital in Nigeria. Its immediate catchment area comprises the whole of the western parts of the country with a population of 15–20 million people. However, it receives patients from all parts of the country and in some cases from other parts of the West African sub-region. It has 530 beds on two sites.

It was designated by the World Health Organization in 1979 as a centre for research and training in mental health. During the index year of this study (1984) it had four full-time consultant psychiatrists, one consultant neurologist, visiting honorary part-time consultant staff which comprises four neurologists (including two paediatric neurologists), four psychiatrists, one sociologist and two biostatisticians. There were nine resident trainees (in psychiatry), four medical officers, one clinical psychologist, two social workers, one occupational therapist, and over 200 qualified psychiatric nurses. Within its main premises it had a School of Nursing which ran a 3-year course with an annual intake of 100 per year.

Subjects and methods

Of 2182 new patients registered in the calendar year 1984, the records of 1914 (88%) patients were examined. The remaining records contained either no diagnostic rubric or the diagnosis was unrelated to neuropsychiatric disorders; most of these were members of staff treated for non-neurological mild infectious diseases. Diagnostic rubrics used were based on the International Classification of Diseases (9th edition). Statistical tests of significance used chi-square and paired Student's *t*-tests.

Results

There were 1040 males (54.30%) and 874 females (45.7%) giving a male:female ratio of 6:5. Table 1 shows the age distribution. Those under 30 years of age constituted 58.1% of the patients. Nine hundred and twenty-four patients (48.3%) were single, 976 (51%) were married and there were seven (0.36%) each in the divorced or widowed group.

Table 1. Age distribution of the 1914 new patients seen in 1984

Age (years)	*n*	Percentage of total
0–9	135	7.0
10–19	366	19.1
20–29	613	32.0
30–39	369	19.3
40–49	202	10.6
50–59	122	6.4
⩾ 60	107	5.6
Total	1914	100

Most of the patients were either referred to hospital by relatives or walked in on their own. Eight (0.4%) were referred by the courts, 22 (1.1%) by general practitioners and 30 (1.6%) by doctors in General/Teaching hospitals. A further analysis of those referred by other doctors showed that most were violent psychotic patients and a few were epileptics with some other focal neurological disorders. Only two were referred for neurotic disorders: one had anxiety neurosis, and the other had neurotic depression.

The occupational distribution is shown in Table 2, petty trading being the commonest occupation. Sixty-one per cent of the patients had some form of formal education (Table 3).

Table 4 shows that 59.5% of the patients had shown evidence of illness for more than 6 months before they were seen in Aro Hospital while only 30.5% were seen within 3 months of becoming ill.

Table 5 shows the diagnostic rubrics in patients with psychoses. Most of the patients with acute psychotic illness presented within 3 weeks of onset of the illness. Although a history of fever at the onset of illness was obtained in

Table 2. Occupations of the 1914 new patients seen in 1984

Occupation	*n*	Percentage of total
Pre-school	95	5.0
Unemployed	165	8.6
Housewives	75	3.9
Farmers	110	5.7
Traders	478	25.0
Junior clerks, Messengers, etc.	175	9.1
Students	429	22.4
Artisans	294	15.4
Teachers, Nurses, Technicians	79	3.9
Professionals and top Civil servants	19	1.0
Total	1914	100

Table 3. Levels of education of the 1914 new patients seen in 1984

Level of education	*n*	Percentage of total
No formal education	732	38.3
Primary education	571	29.8
Secondary education	523	27.3
Polytechnic/University education	74	3.9
Not known	14	0.7
Total	1914	100

many of them only a few were febrile at presentation; but in all, there was no other physical evidence of illness and laboratory investigations were normal. Full recovery within a few days of treatment was the rule.

Eighteen patients had post-traumatic organic psychosis; five developed organic psychosis after stroke. Most of the other patients with organic psychosis suffered from infections — malaria, meningitis, pneumonia and typhoid fever. Delirium was almost invariably present in these patients.

There was a great preponderance of females in the group with depression, the ratio of females to males being 4:1. The female preponderance was equally evident in both neurotic and psychotic depression. Patients with anxiety neurosis, with whom the depressed patients had some somatic symptomatology in common, there was also a significant female preponderance ($P < 0.005$). Patients with neurotic or psychotic depression were also more likely to be married than those with anxiety neurosis ($P < 0.005$). The mean age ($\pm$ standard deviation) in years of patients with anxiety neurosis was 31.5 ± 11.3, with neurotic depression 45.4 ± 13.3, and 37.9 ± 12.1 in

Table 4. Duration of symptoms before presentation of 1914 patients seen in 1984

Duration of symptoms before presentation	*n*	Percentage of total
0–1 month	389	20.3
1–3 months	195	10.2
3–6 months	178	9.3
6–12 months	335	17.5
1–2 years	183	9.6
2–5 years	327	17.1
5–10 years	178	9.3
> 10 years	116	6.0
Unknown	13	0.7
Total	1914	100

Table 5. Types of psychoses in a series of new patients seen in 1984

Diagnosis	*n*	Frequency (%)
Schizophrenia	574	30.0
Schizo-affective disorder	63	3.0
Paranoid psychosis	114	6.0
Psychosis (not otherwise specified)	19	1.0
Childhood psychosis	4	0.2
Organic psychosis	83	4.3
Puerperal psychosis	26	1.4
Paraphrenia	9	0.5
Depression	171	8.9
Mania	40	2.1
Manic/depressive psychosis	10	0.5
Total	1113	62

those with psychotic depression. The patients with anxiety neurosis were more likely to have post-primary education than those with either form of depression ($P < 0.005$). Neurotic depressives were more likely to be ≥ 30 years than patients with psychotic depression ($P < 0.005$).

There was a great overlap in the range of symptoms displayed by these three groups of patients. However, the psychotic depressives suffered more from serious disorders of vegetative functions than did the neurotic depressives. The former were also more likely to cry without cause, be mute, or to have some form of delusion. Generally, patients with anxiety had fewer disorders of vegetative functions than the neurotic depressives. They usually had less problems with sleep but complained more of palpitations, chest pain and free-floating variety and only three were diagnosed as having panic attacks. There were no typical phobic reactions. Table 6 shows the neuroses.

Most of the patients diagnosed as having 'brain-fag syndrome' could have fitted into either the anxiety or the neurotic depression group. The diagnosis was retained because of the peculiarity of the patients; all students with complaints related to the head while studying.

The six patients with the diagnosis of hysteria consisted of three males and three females. Four of them were under 25 years of age, the other two being 32 and 45 years. They were all educated and four had secondary school education. Three had dissociative fugue state, one of them developing it acutely after seeing a pedestrian knocked down by the vehicle in which he was travelling. In three others there was a history of unstable marital life. They are being followed-up for evidence of psychotic or neurological disease.

Obsessional neurosis was diagnosed in two females. One was a 32-year-old petty trader with a 12-year history of repetitive and very disturbing ruminations over 'the origins of the universe, the existence of God, and the existence of another Universe'. She had received temporary relief after previous consultations with the traditional healers. She was married with six children and her family and social history revealed no obvious precipitant. She had features of agitated depression on presentation and had to be admitted for 5 weeks during which she made a remarkable recovery on antidepressant medication and psychotherapy. The second lady was also 32 years old at consultation and she gave a 10-year history of repetitive unpleasant thoughts over trivialities. For example, a list of items to be purchased during shopping the next day might repeatedly come to consciousness even though it was of no particular significance to the patient. She was a teacher and had an unhappy marriage. She was easily irritable and often physically aggressive towards her five children. She had features of anxiety, and was treated by intensive psychotherapy. However, although she reported remarkable improvement after only two sessions she subsequently defaulted. Table 7 shows the neurological disorders seen.

There were only five patients with petit mal epilepsy and three of them also had primary tonic-clonic epilepsy. Many (60%) of the cases of partial epilepsy (either simple or complex) had secondary generalization of their seizures. Febrile convulsion was the commonest predisposing factor for epilepsy. Four women developed recurrent seizures after eclamptic attacks during their first pregnancies.

Seven of the patients with migrainous headache were females with six of them developing the disorder after the age of 20. One patient with classical migraine also had partial epilepsy.

Hereditary spinocerebellar degeneration was diagnosed in a 30-year-old male artisan who presented with a 10-year history of diminution of vision, unsteadiness of gait and problems with articulation. His father and three first cousins had the same problem. On examination, he was found to have dysarthria, optic atrophy, nystagmus on lateral gaze, hypertonia,

Table 6. Types of neuroses in a series of new patients seen in 1984

Diagnosis	n	Frequency (%)
Anxiety	87	4.6
Neurotic depression	41	2.1
Hysteria	6	0.3
Obsession	2	0.1
'Brain-fag' syndrome	6	0.3
Hypochondriasis	6	0.3
Total	148	7.7

Table 7. Neurological disorders in a series of new patients seen in 1984

Diagnosis	*n*	Frequency (%)
Generalized epilepsy (primary or secondarily generalized)*	217	11.3
Partial epilepsy with simple or complex symptomatology	173	9.0
Recurrent febrile convulsions	23	1.2
Cerebral palsy	21	1.1
Mental subnormality	14	0.7
Migraine	10	0.5
Hyperkinetic syndrome	5	0.3
Post-concussional syndrome	5	0.3
Post-traumatic neurosis	4	0.2
Tension headache	2	0.1
Specific developmental disorders	3	0.16
Brain tumour	2	
Enuresis	1	
Vasovagal syncope dyskinesis	1	
Motor neurone disease	1	
Vestibular neuronitis	1	
Trigeminal neuralgia	1	
Heredo-familial spinocerebellar degeneration	1	
Total	485	25

*Includes patients with petit mal (2), facial myoclonus (1) and petit mal associated with generalized tonic-clonic seizures (3).

generalized hypereflexia, dysdiadokokinesia, dysmetria, and other evidence of cerebellar ataxia.

Most of the patients with either a diagnosis of personality disorder or substance abuse also suffered from a psychotic disorder.

The distinguishing factors between the patients with post-concussional syndrome and post-traumatic neurosis were: the significantly longer duration of illness before presentation in the latter, their neurotic pre-trauma personalities, and a higher defaulting rate (100% at 2 months).

Table 8 shows other diagnoses including substance abuse and personality disorders. The commonest drug abused was cannabis.

Table 8. Miscellaneous disorders in a series of new patients seen in 1984

Diagnosis	*n*	Frequency (%)
Personality disorder	10	0.5
Alcoholism	20	1.0
Cannabis abuse	89	4.6
Valium dependence	2	0.1
Adolescent crisis	3	0.16
Adjustment reaction	3	0.16
Abnormal grief reaction	2	0.1

Discussion

The male to female ratio in this study (1.2:1) is less than that of 1.8:1 reported by Tooth [2] and 1.7:1 reported by Ihezue [18]. Male to female ratios of 2:1 [19] and 2.7:1 [20] were reported in admitted patients. Orley [21] asserted that more men are admitted because violence was more feared when it occurred in men. The same may be true of referrals either by doctors (as analysis of such referrals showed in this study) or by relatives. This is more likely than the supposed greater exposure of men in the developing countries to stresses as at least two recent studies suggest that women suffer more than men from disorders like hypomania, depression, anxiety and neurotic symptoms [7, 20].

The pattern of age distribution in this study

conforms to that generally seen in studies conducted in the developing world [21,22].

The widespread practice of consulting traditional healers before Western-trained doctors and presumably a tolerant community attitude to the mentally ill may be responsible for the usually long duration of illness before presenting in hospitals. However, in this study 30% presented within 3 months and 42% within 1 year of the onset of illness. Our patients tended to report earlier in hospital than those studied by Ndetei and Muhangi [7] whose corresponding figures were 16% and 54% respectively. The difference could be explained by the fact that the patients in the walk-in rural clinic who formed their study sample were mostly neurotics with no disruptive or violent behaviour.

As reported by others [1,6,12,22] there was a remarkably good short-term outcome for patients with the diagnosis of acute psychotic episode. Also, as noted by Tewfik [23], many of these patients had a history of fever prior to the onset of mental disturbance which consisted mainly of schizophreniform illness sometimes with short-lived vivid visual hallucinations.

The mean age of the patients suffering from endogenous depression in this study is similar to that reported by Revegellera [24]. In spite of the many similarities in the symptomatology of depressive disorders and anxiety, especially in African patients with widespread somatization [10,23,25,26], this study identified some significant characteristics of patients consulting a mental hospital and suffering from any of these disorders. It appears that the same factors that distinguish patients with anxiety neurosis from those suffering from depressive disorder may determine which neurotic patients come to a psychiatric hospital. Relatively few neurotic patients were seen in this series and this is similar to the experience of Ihezue [17], but contrary to the high prevalence in a community based study [8], among out-patients in general clinics [5,7], and in a teaching hospital [27].

Obsessional neurosis is said to be very rare among black Africans [6,28]. It has been suggested that the rarity may be due to the African lifestyle being controlled by group obsessional rituals which effectively preclude self-directed ritualistic behaviour [1]. The rarity may be more apparent than real; Orley and Wing [8] had reported a frequency of between 2% and 2.8% of obsessional behaviour among the inhabitants of two Ugandan villages.

The high frequency of epilepsy among the patients is a reflection of the high prevalence rates of between 2.9% and 4.9% reported in some rural areas of Africa [16,29,30]. Petit mal is relatively uncommon in Africa, probably because the condition is not considered serious enough to justify seeking hospital treatment [31].

Although the association of epilepsy with migraine is well reported in the literature [32], that of epilepsy with eclampsia is rarely documented. The production of micro-infarcts or sclerosis in the Ammon's horn of the temporal lobe during an eclamptic episode may conceivably lead to subsequent epileptic discharge from this area. In Nigeria, the relative risk of epilepsy in those with migraine has been suggested to be 3.0% [15,33].

Heredo-familial spinocerebellar degeneration is said to be rare in Nigerians [34], and trigeminal neuralgia is rare in Nigerians as well as other black Africans [31].

The frequencies of drug abuse (4.6%) and alcoholism (1%) in this study, when compared with those found in the same hospital by Lambo [22] three decades earlier when 0.5% and 0.4% of 3975 patients were diagnosed with drug addiction and alcoholism respectively, support the view of Edwards [34] that drug addiction and alcoholism were becoming major problems in third world countries.

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