progress the individual must eventually be willing to act, without compulsion, for his own benefit.

Tuberculin-testing, miniature radiography, B.C.G. vaccination, and antibiotics are the four cardinal points of the compass that must be our guide to the eradication of tuberculosis, but the compass must be firmly based and binnacled by sound general public health measures. The importance of the primary infection and the lesion it produces can hardly be overestimated, for the initial reaction of the tissues to this invasion influences the subsequent course of the disease. It is therefore essential that future preventive measures should be directed, in the first instance, to discovering and treating the primary lesion whenever it occurs. To do this serial tuberculin-testing of children and establishing free static miniature radiography services in all large towns are advocated. Every effort must be made to prevent the spread of infection from persons with active disease who live in or enter countries where the incidence of infection is low.

This is the major reason why tuberculosis has become an international problem. The more favoured nations must assist those in whose country the disease is still a major public health problem, not only because of the danger that lies at the door, but because the elimination of disease and relief of suffering are duties that the healthy must accept for the benefit of all mankind.

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NEUROPSYCHIATRIC OBSERVATIONS IN THE WESTERN REGION OF NIGERIA

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It is proposed in this article to discuss in outline the various neuropsychiatric problems studied in our psychiatric day hospital and to inquire whether, and in what sense, a neuropsychiatric day hospital is of value as an instrument of investigation and therapy in this particular social environment.

It is important to define the attitudes of the African to sickness in general and to mental illness in particular. There is also a great need in our entire management of the patient to consider and treat him within his social environment. Insight may thus be gained concerning the therapeutic and educational training towards a stable mental health programme for the Western Region of Nigeria.

The whole question is of practical, even immediate, importance because within the next few years we shall be evolving our own methods of investigation and treatment—methods which have strong bearing on our social organization.

The Peoples and Social Conditions

The area which is classified as the Western Region is inhabited by a large number of tribes speaking different dialects or languages and having very diverse cultures. The population is about 6¼ million, and the principal tribes are Benin, Yoruba, Urhobo, Itshekiri, Western Ibo, and Western Ijaw.

This great diversity of tribes and cultures makes any survey of neuropsychiatric problems of this area peculiarly difficult, and the task is not rendered easier by the almost complete ignorance about some of the customs of the smaller tribes. There is also the lack of any complete or reasonably detailed study of the mental disorder occurring among any one people in the Western Region.

For practical purposes the social strata of the people dealt with can be divided into three broad categories: (1) the Westernized (Europeanized) group ; (2) the marginal group ; and (3) the largely untutored and comparatively primitive group.

In the first group are patients whose cultural standards range between that of a legal practitioner and a qualified nurse. The marginal group consists largely of those who have been described as occupying the artificial region of no-man's-land—that is, not belonging to either group. They are usually daily paid labourers and the lower artisan class —with varying degrees of illliteracy but urbanized to a considerable degree. In many areas the older generations are becoming increasingly dependent on the younger, who are able to earn good wages since the only source of liberal cash is wage labour in distant towns. The primitive group, which is disappearing gradually, has been and still is our immediate preoccupation.

Although the socio-cultural factors vary among the tribes there are significant points of similarity between the various tribal institutions and those of the other less developed areas in the world. In a simpler society, in the words of Lin Yutang, man lives a life closer to nature and closer to childhood, a life in which the instincts and emotions are given free play and so contrasted against the life of intellect, with a curious combination of narcissism, omnipotence of thought, and arrogance of the spirit, of profound wisdom and foolish gaiety, of high sophistication and childish naïveté. A strong sense of social security in a closely knit society, well-organized and well-defined kin groups with definite mutual obligations and affection, reinforced by ancestor cult, are well exemplified in this type of culture.

Western Nigeria is predominantly a country of peasant farmers, and the main sources of economy are cocoa, kola nuts, and palm products, though quite a large proportion have now taken to trades of various kinds. In the Benin-Delta region the chief occupation is in the timber and rubber industries. Fishing is relatively important in Western Ijaw and in the villages lying on the Niger delta and on the coast.

The Western Region of Nigeria is rapidly changing culturally and socially, and the most recent advances in these spheres are spectacular, but nevertheless traditional tribal customs still flourish in considerable strength, mostly in rural areas.

According to the native law and custom, marriage is potentially polygamous in the sense that there is, during its subsistence, no legal impediment to the contracting of another marriage (or of an unlimited number of other marriages) by the husband. It has been said that this practice reflects adequately the fundamental inequality between the sexes which seems to be typical of African social systems (Phillips, 1953).

From the racial standpoint the Western Region is fairly homogeneous, being entirely negroid. In the Benin-Delta

area there are individuals with lighter pigmentation and a narrow nose, and these differences may be due to the admixture with whites. It has been reported that the Portuguese had been in touch with the kingdom of Benin as early as 1472, dealing in ivory and slaves. From the constitutional point of view, generally speaking, all the principal somatotypes are represented—asthenic, pyknic, athletic, and mixed types, with an apparent predominance of athletic types.

Mental Health Organization

The existing facilities comprise the "native treatment centres" in the villages and towns and the Government asylums. The former are scattered all over the Western Region, but the important and usually traditional ones are located in Ijebu, Abeokuta, Ife, and Benin Provinces and in Western Ijaw, many of which I have visited and surveyed.

Treatment at these native centres varies in intensity from simple psychotherapeutic measures to sadistic cruelties of the most primitive nature. As there is no empirical approach by which the value of their methods can be assessed, it is impossible to state precisely the degree of usefulness of, and contributions made by, the best of these native treatment centres.

I should, however, like to endorse and elaborate on the conclusion of Tooth (1950), who stated: "It will be objected that a plan of this kind relegates to a lay Authority what is properly a medical responsibility, but a visit to the Gold Coast Asylum should convince an impartial observer that the African's lack of confidence in the European management of this branch of medicine is well founded. Moreover, it seems unlikely that an alien psychiatrist could ever succeed in assimilating the complexities of the West African background in time to make an appreciable contribution in this field. So that, until African psychiatrists can be trained, it would seem better to allow the care of the majority of the insane to remain in lay hands."

Some of the native treatment centres which I have seen may well play a useful part in solving our immediate problems. Their psychotherapeutic measures are as effective and as scientifically sound as any I have seen practised in Europe. (See also Opler, 1936.) So far as I can judge, their functions are similar to those of certain lay psychotherapists in England, though the latter are usually trained. Therefore, as it will be several years before enough African psychiatrists can be trained, and there are at present only two psychiatrists in the whole of Nigeria (population of 32 million), one of whom is a European, it might be advisable to retain and improve the best of these institutions.

It is known that institutionalized confessions, trances, dances, and primitive religious rites and ceremonies, all of which are found to form the basis of the treatment armamentarium of these centres, are powerful psychotherapeutic measures.

Ackerknecht (1943), quoting Kempf (1931), has emphasized the "tremendous psychotherapeutic power which magic has, not only for those for whom it is performed, but above all for the performer himself. It is a kind of psychological safety-valve, he pointed out, "where too strong psychic pressure can be released." "We thus have to recognize," he continued, "that in primitive societies there perhaps exist outlets for mental conditions with which we are not able to deal." This latter statement is borne out by the fact that these native treatment centres claim greater success in the sphere of neuroses. Some of the medicine men think that incipient or latent psychosis responds in the same way.

There are three Government asylums in the Western Region of Nigeria, with a total capacity of 110 patients. Nearly all the inmates are certified, and about a third are criminals. Until recently, the conditions of the asylums were unimaginable—most gloomy and terrifying. The largest of these asylums is Lantoro Institution, situated in Abeokuta—here conditions are very much better and discipline is good.

Projected Schemes

Under the Colonial Development and Welfare Scheme, funds were made available to build in Nigeria the most modern mental hospital in Africa. The work started in 1951 at Aro, two miles outside the Abeokuta town boundary, and after initial difficulties the building programme is progressing satisfactorily. The first stage is to build a 200-bed hospital with great emphasis on research, out-patient treatment, and domiciliary visits. The hospital is still under construction in parts and is being built on the villa system.

The present senior staff consists of one African psychiatrist, one English chief nursing superintendent, two English tutors, one English occupational therapist, and four African nursing personnel trained in the United Kingdom. The junior staff comprises very experienced though "untrained" African nurses originally at the old asylum, some of whom are now going through the preliminary training school course here. In a year's time it is hoped that more trained mental nurses will return from the United Kingdom in time to make it possible to open one or two of the wards.

The new hospital is nicely situated in beautiful grounds of about a mile square. Its unique feature is its community development. All the members of the staff (senior and junior) are resident, and there is a programme to accommodate the essential labourers and other artisan employees in a proposed village community centre also in the hospital. Modern amenities are also available in the hospital—electricity, water, and recreational facilities for patients and staff.

In order to make a preliminary study of the neuropsychiatric problems with which the hospital may have to deal in the future and to enable the staff to discover the best avenue of approach to interests of the patient, the psychiatric day hospital was started in October, 1954.

Where family units are so close and interpersonal relations are so important, experience has shown that patients should be treated in as natural an environment as possible. The present report is based on the information obtained at this day hospital and from domiciliary visits.

At the day hospital patients are boarded out in the neighbouring villages and come in every day for treatment, spend the rest of the day in the department of occupational therapy, and return to the village late in the afternoon. Thus a patient is able to maintain contact with his social background, and the process of rehabilitation after recovery or improvement becomes more easily facilitated.*

At the outset of this experimental day hospital the *bales* (the village heads) of the four big villages were interviewed and all plans were explained to them and their co-operation was sought. Consequently most of the patients boarded in the villages are specially selected. Patients are accompanied by their relatives, usually either mother, sister, brother, or aunt, and most of them come from distant areas. A nurse is always on duty in the village at night to cope with the minor nursing exigencies (insomnia, headaches, etc.) and to send for help in matters of urgency—for example, hypoglycaemic coma, which is not infrequently found in patients on insulin therapy and who return to the village in the late afternoon. The presence of a nurse on duty at night in the village is more of psychological than of practical value. A guide is also provided by the hospital to look after the relatives of patients from distant areas.

The present clinical facilities consist of electrical treatment (E.C.T., electro-narcosis, subconvulsive stimulation), insulin therapy (modified and coma), abreactive techniques, and various psychotherapeutic measures and drug medication. In addition to these, special emphasis is placed on occupational

*A cursory review of the literature on family care revealed that this approach has been practised for some hundreds of years at Gheel, Belgium, where the mentally ill have been treated by being boarded out in households surrounding a central institution. This apparently arose out of a religious foundation. Pollock and Hester Crutcher gave most comprehensive surveys of this subject.

therapy and other group activities. The occupational therapy centre is planned in such a way as to afford patients every opportunity of diverse social backgrounds. Little huts have been built to present a village atmosphere and to enable patients to carry out any rough type of occupational activities. More sophisticated patients paint, weave, knit, etc., in a well-designed building.

There are definite indications that clinical facilities at this hospital will also be made available for the clinical instruction and teaching of the medical undergraduates when teaching starts at University College, Ibadan, in October, 1956.

The second stage of the building programme should take the total number of beds to 500, but, of course, much of the future programme depends on the availability of well-trained and competent staff.

In the proposed mental health programme this new hospital is to be used essentially for relatively early and acute cases with fairly good prognosis. It is hoped that the average stay of a patient will be about nine months to a year. The existing asylums are to be retained and improved to receive the chronic refractory patients and the main bulk of criminal mental patients.

Psychiatric Findings

Whereas all competent observers (Coriat, 1915–16; Seligman, 1929; Cooper, 1933, 1934; Demerath, 1942; Carothers, 1947, 1951, 1953; Tooth, 1950; Yap, 1951) who have examined clinical material among primitive peoples agree to a certain extent about the reality of the qualitative differences in mental reactions in different cultures, there is less unanimity concerning the interpretation of these differences. The controversy that inevitably ensues illustrates the unfortunate effect on science of the moral arrogance of nineteenth and twentieth century Europe, which sets up its civilizations as the standard by which all the other civilizations are to be measured. For example, if one examines critically in other cultures the concept of *Oedipus complex,* the significance of severe anal training in the genesis of obsessional neurosis, etc., a considerable gap remains between cultural differences and the fundamental interpretation of these concepts.

Commenting on the Yoruba tribe, I stated: "There is no toilet training during this period. The mother or other adults show no resentment or disgust when the child soils the floor or the body of the person caring for it. It is usually cleaned up without fuss" (Lambo, 1955). Oesterreicher (1951) has also commented: "The repressing forces of civilization and reason are much feebler than and different from those in the Occident." He continued, "The deeper psychological mechanisms are lying much more superficially; *Oedipus* and *castration complexes,* for instance, are represented almost overtly and the dream symbols are simple and easy to explain."

Without attempting any examination of some of the complex and ambitious theories that have been advanced, it is relevant to indicate that parallel observations are being made in this respect, but it is considered wise to restrict ourselves, at any rate primarily, to a descriptive approach.

Within the last year, in this day hospital, observations have been made on, and treatment given to, 35 patients suffering from schizophrenias, 15 from affective disorders, 12 from psychoneuroses, 3 from confusional states (toxic-infective psychotic reactions), 8 from mixed psychosis (psychoneurotic-psychotic syndromes), 3 from mental defectiveness, 9 from cerebrovascular disorders with psychiatric symptoms, 2 from Parkinson's disease, 4 from neurosyphilis, 1 from neuropathy (avitaminosis B), 23 from convulsive disorders, 7 senile psychotics, 2 patients who presented the syndromes of depersonalization exclusively as their main disorder, 1 psychosomatic dermatological manifestation, 20 women classified into the psychosomatic (gynaecology) group, 1 drug addict (pethidine). Many other patients were seen on domiciliary visits.

Psychoses

Schizophrenia

This mental disorder is by far the commonest of all mental disorders in the Western Region. Most of our cases were from the urban areas, but a few were brought in from the villages, usually after the efforts of the native medicine men had failed. The most significant finding is the lack of predominance of any sub-variety. In most of our paranoid schizophrenic group there is a tendency for this condition to be associated with variable social success and to show high correlation with detribalization (urbanization). Observations are being made on the forms of schizophrenia (and schizophrenia-like psychoses) in this culture. One single fact of practical importance that has been recognized and emphasized is that schizophrenia is not a unitary condition, and on the question of aetiology and pathogenesis a wide viewpoint should be adopted. (For further information on the influence of culture on schizophrenia see Seligman (1929), Klineberg (1940), Demerath (1942), Ackerknecht (1943), Tooth (1950), Carothers (1951), and Lambo (1955)).

Affective Psychoses

The rarity of depressive illness in Africans has been noted by many observers (Laubscher, 1937; Tooth, 1950; Carothers, 1953).

In most of the endogenous psychoses occurring in the primitive, psychical agents often seem to be pathogenetic while the constitutional factors fall into the background. Therefore observations made, especially in the field of affective psychosis, need to be thorough, and the situation or circumstances in which the observations are made should be defined.

The importance of the therapeutic and buffering value of supernaturalism, dreams and visions, free emotionality, unrestricted sexuality, dancing, trances, etc., have already been emphasized. The essential function of these cultural factors is that of preventing depression and the accumulation of other psychic stresses. It should also be realized that cultural factors which prevent depression may in certain circumstances provoke anxiety (see below).

Any form of magic in Yoruba culture establishes the "positive diathesis of optimism and confidence in success." This may account for the real absence of "reactive depression" and for the lack of intensity in the clinical picture of most of the endogenous group.

Absence of depression (or classical psychotic depression) in Africans as a whole seems to be more apparent than real, and, since beliefs and superstitions still pervade most of the aspects of African lives, even those of the westernized group to a certain extent, these cultural factors must damp down depression on and enhance or exaggerate excitement. This may account for the apparent predominance of mania or excitement in the psychoses of the negro race as a whole.

Since we have observed almost classical depressive psychoses, both of endogenous and of organic types, in our subjects, in addition to the observations made, during the war, by foreign psychiatrists among the West African troops, the rarity (if it is indeed rare)* of depressive illness among the negro race as a whole seems to be culturally and not constitutionally conditioned.

Aubin (1939) has reported that depressive states "are much the most frequent manifestations" in westernized African troops who were confronted with psychological conflicts (war stresses, etc.). Green (1917) says that manic-depressive illness is more often of the manic type in negroes than in other races, especially the whites. Similarly, O'Malley (1914) talked of the predominance of exaltation in the manic-depressive psychosis of the negroes.

*Whether depressions are rare nobody knows. The only fact known is that they are rarely seen by doctors and the native therapists.

The 15 patients selected for comments here have affective disorders which were mainly of endogenous origin, while those with underlying organic basis* were excluded from this group. The group consists of eight cases of recurrent mania, one manic-depressive, two involutional depressives, and four endogenous depressives. Common to all the depressive patients were a marked degree of sadness of mood and a varying degree of psychomotor retardation. Only one was preoccupied with feelings of guilt, self-condemnation, and anticipation of punishment. Others showed multiple somatic features, phobic and obsessional symptoms, anxiety, and other symptomatic loading at the initial phase.

In the manic-depressive patient recent and very disturbing environmental factors were thought to be responsible for the onset of the patient's depressive illness, and apart from these acutely disturbing influences her depressive illness also fulfilled all the other diagnostic requirements of a reactive depression. This allegedly reactive element eventually ushered in a manic-depressive episode. This and other cases seen here exemplify the theoretical significance of the rigid classification into, or differentiation of, "reactive" and endogenous depressive states purely on the basis of circumstances and the clinical picture alone, without a full assessment of the patient's life.

All our depressive patients were westernized, and the average age was 36 plus. No case of classical psychotic depression was encountered among the primitive population. I believe that these cases exist, but as they do not carry the same social import as mania, which repeatedly comes to notice, there is a tendency for them to get overlooked. There are no grounds on which the apparent absence or rarity of endogenous depression among the primitive population can be explained except on the basis of cultural influences. There is no reason why the distribution of genetic-constitutional factors should vary among a homogeneous racial group of heterogeneous cultural standards.

Suicide is rare in the primitive community, while it is not uncommon in westernized Africans. A survey of nine villages showed that as far back as the elders could remember no case of suicide has ever been reported or suspected.

The group of involutional depression presents features which are of clinical interest. No case was seen which could be described as being classical or typical—that is, involutional psychosis. The entire clinical picture lacks the intensity which one finds in the reactions of some of the European patients. The ideas of unworthiness, feelings of guilt and self-reproach, are absent. Deep depression and retardation, ideas of ruin and of fear for the future, are also absent.

In my experience the two cases treated here were typical representatives of the group. The most prominent symptoms were the persistent hypochondriacal anxiety, slight agitation, inability to concentrate, varying degrees of insomnia and depression—a mild form. The two patients responded favourably to hormone and vitamin therapy with occasional sedatives at night.

These conditions closely simulate the group of "anxiety states occurring at the involutional period" which Sir David Henderson (1920) described.

The experience gained at the day hospital here confirms my idea that this type of centre would be of great help in researching into some aspects of mental disorders.

A result of great practical importance is that treatment was sought and obtained by a wide variety of patients who normally would not have had treatment in a mental hospital atmosphere. Because of the rigid selection of psychotic patients, and the early stages of some of the disorders, our treatment results are very encouraging, and this news inevitably spreads.

A fundamental point in the relatives' outlook is that the patient is attending a type of hospital where the vast majority of its patients are not destined to either chronicity or long institutionalization.

Psychoneuroses

While no reactive or neurotic depression was seen in the primitive population, there were many patients from both villages and urban areas suffering, with demonstrable psychogenic factors, from hysteria. All our patients were immature inadequate personalities with previous neurotic traits either in early childhood or in early adult life. The ratio of women to men was 4 to 1, and there was an equal distribution between the westernized and the primitive population. Twelve patients were observed for detailed study.

Neurotic manifestations elicited included an exaggerated display of emotionalism, which was nearly always accompanied by transient episodes of depression and anxiety, conversion hysteria, and various somatic disturbances. Musgrave (1921) included these and other symptom-complexes under the heading of "Tropical Neurasthenia, Tropical Hysteria, and some Special Tropical-like Neuropsychoses."

Anxiety state is by far the commonest psychological disorder in the primitive. In primitive culture the use of sorcery and magic as agents of overt aggression is well known, and the psychological effects are bilateral; whether an individual himself employs them or not, the potential threat constantly haunts him. Consequently, domestic friction and imagined hostilities that arise from his interpersonal relations provoke anxieties and fear which have their genesis in the belief that his fellow men may do him harm in this mysterious way.

Though the cultural machinery provides some buffer system which modifies, allays, or aborts depression, nevertheless anxiety reactions are almost a normal component of the sociocultural situation. Pathological exaggeration of this state of mind constitutes a clinical state and may even lead to death in some cases if not treated. This form of death has been called "thanatomania" (Ackerknecht, 1943)—death from magic and autosuggestion without any demonstrable pathological cause. These anxiety states have the same qualities and identical psychosomatic manifestations as those that are seen in European patients, with a common denominator in the disturbance of mental synthesis. These, of course, are especially related in their genesis and evolution to the social life. Ackerknecht has remarked, "One would be a belated victim of the belief in the good savage to think that primitive society does not also contain sufficient psychic tension to produce mental disease."

All react equally to psychotherapeutic measures such as suggestion and hypnotherapy. In some cases this situation is provoked only by certain stimuli and, in the words of Hallowell (1938), "The fear or suspicion of any man that sorcery is being levelled against him arises because his guilty conscience acknowledges the ground for retaliation, on the premise of supernaturalism, for opposition, death wishes, and antagonisms he has directed against others. The fear that he may become the object of the evil power of others is to relate to the primitive man's awareness that he has done wrong, or that he is the object of criticisms." Hallowell has thus recognized that most primitive cultures are at many points especially conducive to states of morbid fear and anxiety.

An examination of a series of cases of anxiety states revealed, amongst other generally recognized characteristics, that precordial distress, headaches, and gastric symptoms were by far the most common physical manifestations of this clinical reaction.

One female patient suffering from obsessional neurosis was seen in the rural area at one of the native treatment centres. The illness was long-standing and severe. Her symptoms included compulsive repetition of ritual words,

*Cases in which depressive symptoms usher in or precede a true picture of schizophrenia were also excluded from this group.

avoidance of red bowls, inability to go across ant-trails, with underlying anxiety. This particular patient is making good progress, and I have been allowed to be present at two of the treatment sessions. So far as I can judge, the patient is usually put into a hypnotic state, and when in this state she is made to entertain all the thoughts and perform those actions she "normally" avoids. While going through this treatment all her anxieties in relation to her symptoms are allayed by "appropriate rites" (an intricate psychotherapeutic mechanism expressed in the form of expiatory and ceremonial activities). The entire treatment situation seems to be functionally related to a deconditioning mechanism.

We have repeatedly found that in the sphere of psychoneurosis some illiterate patients who have failed to respond to our form of approach have recovered under the influence of "native psychotherapists" at the native treatment centre.

Conversion symptoms are not uncommon, and these ranged from hysterical aphonia and deafness in a schoolboy aged 12 to peculiar distribution of anaesthesia of both legs in an Ifa oracle diviner trainee. The latter patient, who was an illiterate man of about 25, had an acute hysteria at the onset with multiple symptoms; the prominent ones were pseudo-choreo-athetoid movements, with manifest anxiety. Laubscher (1937) has commented on similar observations among the Tembu tribe of South Africa.

The most interesting group was the "psychosomatic gynaecology"—women with varying degrees of sexual inadequacies, especially frigidity. The common symptom in all the patients was sterility.

The patients in this category were especially selected after all organic gynaecological factors of sufficient degree to cause sterility had been excluded. Twenty patients were treated with psychotherapy within the last year. In most cases their husbands have taken part in the treatment situation. All the patients have had a history of sterility of at least two years. Five women are now pregnant and seven have got rid of their anxiety, hypochondriasis, and various types of pain and tenderness associated with coitus. Routine psychological interviews and physical examination of their husbands revealed the fact that nine suffered from impotence, one from pathological timidity, and one from feelings of inferiority.

Three of this last group of seven patients presented with abdominal swellings, which were later diagnosed as pseudocyesis, especially at a time when it was obvious that two of the five women were pregnant. One of the patients who originally complained of dyspareunia was later found to have chronic appendicitis, which was later dealt with by a general surgeon. On returning to us the patient still complained of pain during coitus, "though not as bad as before the operation." Her dyspareunia was successfully treated with psychotherapy.

It should be emphasized that the chief end of marriage in most primitive cultures is procreation. Mair (1953) has stated that "the importance of securing legitimate descendants accounts for the most characteristic features of African marriage law." Inability to fulfil this function seems to be the key to the understanding of some of the neurotic conflicts that would otherwise be puzzling to a European observer. Oesterreicher (1951) has pointed out that "the childless Chinese wife who has not accomplished her task in the Chinese community constitutes a special chapter." It was observed that, basically, the personalities of these women exhibited noticeable common features—emotional immaturity, inferiority feelings, inadequacy, and exhibitionistic tendencies. Another notable feature was anorexia.

In the mild forms of hysteria we have found that suggestion and reassurance, often under barbiturate narcosis, will suffice. Imposed therapy, on the whole, is sufficient in most of the majority of cases encountered, but most of the primitive patients respond much more readily to indigenous psychotherapeutic measures.

In spite of all our initial difficulties and the traditional scepticism of the "European form of treatment," out-patient attendance is growing and people are now beginning to come on their own accord; others are sending their relatives. This is an interesting development, showing an increasing confidence in our approach and the gradual disappearance of that horror with which the public are supposed to regard the experience of any form of mental hospital.

Although psychoneurotic patients are not often co-operative—for example, they sometimes refuse to work in the occupational therapy centre with recovering psychotics, protesting that they are being classified with "mental" patients—we have found that they benefit considerably from a day hospital of this nature.

Neurological Findings

Our clinical experience in the field of neurology is confined to convulsive disorders, Parkinson's disease with personality changes, cerebral lues, psychiatric aspects of cerebrovascular disorders, neuropsychiatric syndromes associated with avitaminosis and malnutrition, and post-traumatic conditions (head injuries), usually with some degree of personality alteration but with or without residual neurological signs. Our observations on this important subject are grossly inadequate, as we are interested only in neurological patients with psychiatric changes or borderland cases belonging to both sciences.

Epilepsies

We have seen more epilepsies at this day hospital than any other neurological or psychiatric disorder except schizophrenia. Clinically, we have observed all forms of convulsive disorders. There are two children with pyknolepsy, one with psychomotor epilepsy, nine patients with major fits, one epileptic patient with psychosis, three patients with mild Jacksonian types, two with nocturnal epilepsy, and a child of 10 suffering from post-infective dementia. All the diagnostic aids are available, including an elaborate E.E.G. machine, which is seldom used unless the diagnosis is obscure or doubtful.

In an environment such as this, where all that is evil about convulsive disorders is all too firmly rooted in the minds of the society, the psychological burden is greatly enhanced and the persistent emotional difficulties which rule his interpersonal relations with others give rise to a number of problems. For example, a great many of our epileptics are aggressive, antisocial, and inadequate, and find it difficult to adjust.

In view of the above social circumstances, in-patient facilities (or other suitable arrangements) will have to be given to the epileptic patients, and psychotherapy, which has proved a very important adjuvant to routine drug medication in the day hospital treatment, should be given an important place in the management of the patient. Psychiatric social services will have to give particular attention to the social problems of epilepsy.

Other Neurological Diseases

Of the two patients suffering from Parkinson's disease, one was arteriosclerotic and the other syphilitic. In practice it has been noticed that G.P.I. is becoming increasingly uncommon. This may be due to a combination of the indiscriminate use and gross abuse of neoarsphenamine and penicillin (not only for yaws and bacterial infections but for almost all complaints) and the very frequent attacks of malaria.

Nutritional disturbances manifesting as neuropsychiatric syndromes would provide material for a separate article. These syndromes are most commonly found in the aged and not uncommonly associated with senile psychosis. It may be mentioned in passing that since there are comparatively fewer old people among our population the question of rarity of senile psychosis in the Western Region population must remain open.

Post-infective neuropsychiatric conditions are not uncommon. Infective hepatitis, amoebic dysentery, filariasis, and dengue fever have been encountered in association with neuropsychiatric conditions, but the part played by these physical diseases has yet to be properly evaluated. At present it is felt that they are no more than exciting causes.

No definite opinion can as yet be offered on the question of presenile psychoses—Alzheimer's disease and Pick's disease. Though very rare, their total absence cannot be denied as yet. There are two patients now under observation (both under 50 years) with severe apathy, memory disturbance, and disorientation for time, place, and person. They showed behaviour disorder almost from the start of their illness. These symptoms have been going on for almost two and a half years with gradual deterioration. Only one shows neurological signs (ideational apraxia and expressive aphasia). In spite of all medical care, their conditions are deteriorating. Blood and C.S.F. Kahn tests were negative and conditions like cerebral arteriosclerosis, cerebral hypertension, and intracranial neoplasms were excluded as much as one could do this with limited facilities.

Although the Government statistics are unreliable, disseminated sclerosis has not been seen in this country yet. After describing the symptoms of an established case, the native treatment centres have failed to confirm the existence of this disease. Lewis (1942) described two cases of muscular dystrophy but he did not mention disseminated sclerosis. It is not clear whether he meant to imply that it does not occur.

Discussion

There is no doubt that indigenous social and cultural factors demand a re-evaluation of the orthodox psychiatric concepts and approach. The views expressed here are based on observed experience, and not merely on a theoretical assumption designed to bring the concepts of mental diseases in this culture into line with those that have been formulated in Western culture. This study has enabled us to understand some of the phenomena, and in some instances to predict their course and occurrence.

The approach outlined here seems, in fact, practical in so far as it enables us to develop a standard of normality in relation to this culture itself. This is necessary as a means of controlling an uncritical application of the criteria based on the cultural pattern of Western civilization.

Present experiments of treating certain types of patients on a day hospital and domiciliary basis have shown such advantages over hospitalization that there is considerable justification in instituting this programme on a large scale. Institutional confinement as the first principle of treatment for mental disorder is open to criticism in view of the practical results of this approach.

Experience gained here reveals that social learning, feeling of security, re-education, and reassurance can readily be obtained from a normal group in a more dynamic way than can be imparted by other patients. It is also known that when recovery is probable the success of all measures towards readaptation depends upon the transfer of the patient's affect to other people in his immediate environment.

With a skeleton staff such as we have here this method of approach shows that a great deal can be done for the community by extending psychotherapeutic treatment to an increasing number of patients. The community, on the other hand, can have the opportunity of watching the gradual process of recovery of the patients, thereby changing their views on the alleged causation and course of mental illness and perhaps exhibiting more tolerance.

The conclusion to which the great mass of observation so strongly points is that, under conditions which we have not yet been able to define satisfactorily, the community group influences in the village are of great therapeutic value. Since the major part of the hospital labour force is drawn from the surrounding villages, these labourers are in turn the landlords of most of the patients living in the villages. Consequently they all feel that they are contributing towards the hospital group activities, and through the process of "primitive passive sympathy" are drawn into the treatment situation.

We have found that even patients who, in their own home environment, had shown aggressive and dangerous tendencies became reasonably quiet and manageable under the conditions of the village. The success of the scheme will ultimately depend upon the co-operation of the peasants living in the villages and in the neighbouring countryside on receiving in their homes such patients as are selected by the medical superintendent, and upon special efforts by the hospital to find the exact home which is most suited to the patient's requirements. Thus a tradition may be established.

It must not be forgotten that in our treatment programme emphasis is not laid on the day hospital as such but rather on *the creation of a social unit large and effective enough to be of therapeutic value.* The advantages of the method are exemplified in the quick readaptation of the patient to the social *milieu* and in the emotional interaction of the group, all of which aim to promote better integration of the personality.

With problems so wide as those referred to in this article—for example, the sudden impact of Western civilization, as evidenced by the gigantic process of detribalization and the disruption of the family units, lack of adequate provision for psychiatric care, etc.—mental hygiene might seem to have a task in the future for which no adequate programme could at present be outlined. However, the programme of mental hygiene should include among its problems that of the fairly large proportion of ill-health in the entire community, due to nervous or mental disorders, often masquerading under the form of physical illness.

In the study of African* mental reaction we now seek to determine and disentangle the permanent (implying racial or psychobiological) from the changing element (implying cultural). We are therefore committed to a deeper investigation which may take several generations.

It has been demonstrated that certain types of neurosis are rare in this culture, while there is a "racial" predilection to others, and this is also true of affective disorder. These racial variations in quality and/or quantity (incidence) of mental illness constitute a major problem to ethno-clinical study.

Conclusion

In a country where a high proportion of the population suffer from anaemia, malaria, avitaminosis, or some form of malnutrition, it is difficult to delineate the effect or the role of physical illness from those of constitutional and socio-cultural factors in the aetiology of mental disorder.

The approach to our problems is not revolutionary; in a way it is essentially conservative, since full consideration is given to socio-cultural phenomena, the nature of which, however flexible and malleable they might be, cannot be altered at will.

The sociological implications of neuroses are greatly enhanced in this culture. The fact that some neuroses which are resistant to our therapeutic handling respond readily and adequately to indigenous psychotherapeutic measures stresses the importance of social values in psychotherapy.

The expression of neurotic and manic-depressive illnesses is subject to considerable socio-cultural

*The word "African" is used here in a restricted sense—that is, cultural group—without ethnological or racial connotation. It should be realized that the Yoruba-man, the Masai, and the Bantu may show mental differences as great as those between the Papuan and an Englishman, even though mental reactions of these races have a common denominator in, or are explicable by, the general psychodynamic concept.

influences. These observations therefore call for an establishment of a suitable approach; hence the creation of a therapeutic social unit in the form of a village community which offers familial care of the mentally ill.

Reactive depressions are rare, and endogenous depressions are rarely seen in hospitals or native treatment centres, in contrast to mania. Cultural factors seem not only to play a prominent part in the clinical manifestation of depressions but give an apparent preponderance of excitement whether in association with schizophrenic and manic depressive illnesses or with some ill-defined clinical condition.

From the point of view of research, what is more urgently needed is further work towards the establishment of a more complete study of the complex psychological reactions of the African and more refined analysis of the cultural institutions, of the critical analysis of the clinical data obtained, of the psychological implications of the changes in his cerebral structure and function, of the technical procedures involved in making these observations, and the statistical examination of the evidence so acquired, with the object of facilitating the task of comparison and, ultimately, of causal explanation.

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The report of proceedings of the Scottish Society of the History of Medicine for the session 1955–6 is of wider interest than its title suggests. It includes a summary of important medico-historical publications and events during the year. It also contains the full text of the papers read before the society during the session—namely, "Some Peeblesshire Doctors, with Special Reference to Mungo Park," by the Rev. Dr. A. M. Gillespie; "John Goodsir," by Dr. H. W. Y. Taylor; and "The Maladies of Mary Queen of Scots and her Husbands," by Dr. M. H. Armstrong, who suggests that Mary was a hysterical psychopath. From January next the proceedings of the Society will be recorded in the new British quarterly *Medical History.*

CEREBRAL MANIFESTATIONS OF VITAMIN-B_{12} DEFICIENCY*

BY

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The changes in the nervous system now known to be due to vitamin-B_{12} deficiency occur in the spinal cord, peripheral nerves, and brain. By long usage the name of subacute combined degeneration has been applied to these nervous lesions, but, as suggested by Jewesbury (1954), it would now be more satisfactory to use the comprehensive term "vitamin-B_{12} deficiency" with the appropriate qualification of "megaloblastic anaemia" and/or "myelopathy," "neuropathy," or "encephalopathy."

The brain lesions which form part of the neurological syndrome of vitamin-B_{12} deficiency appear first to have been described by Preobrajensky in 1902. Thomas Addison, in his orginal classical description of pernicious anaemia, said "the mind occasionally wanders," but the cerebral symptoms are still much less familiar than those due to the spinal and peripheral nerve lesions, although they are not of infrequent occurrence. My object is to emphasize once again the importance of their early recognition and prompt treatment. The end-result of untreated cerebral lesions may be a severe dementia even more crippling than the paraplegia produced by the spinal lesions, and it may be completely irreversible when treatment is delayed by failure in diagnosis.

McAlpine (1929) said, "Mental changes occur not uncommonly in pernicious anaemia. They range from states of depression accompanied by loss of mental energy to definite psychoses. They, like the nervous symptoms, may precede the characteristic changes in the blood by many months. More frequent examination of the gastric contents and of the blood, especially for the presence of megalocytosis, is called for in primary neuroses and psychoses occurring after the age of 35, in view of the favourable results that may follow adequate treatment instituted at an early stage." This statement still holds true and needs no modification. It must be emphasized that the cerebral symptoms, like those due to lesions in the spinal cord, may precede the appearance of anaemia for long periods, sometimes for years, and that they may occur in the presence of a completely normal blood picture and bone marrow and even in the absence of spinal lesions. Greenfield and O'Flynn (1933) found that 14% of 45 patients with subacute combined degeneration of the spinal cord had normal peripheral blood counts, but there appear to be no similar statistics concerning the cerebral symptoms in relation to the blood picture, although Woltman (1924) states that 4% of 1,498 cases of pernicious anaemia had an "outspoken psychosis," while "35.2% showed lesser mental changes manifest even on casual observation."

Present Series

In a series of 25 cases of vitamin-B_{12}-deficiency syndrome with involvement of the nervous system seen in the past few years I have encountered 14 cases with well-marked

*Read in the Section of Neurology and Neurosurgery at the Annual Meeting of the British Medical Association, Brighton, 1956.