The Medical Journal of Malaya
Vol. XIX, No. 2, December 1964.

MIGRATION AND SCHIZOPHRENIA — A REVIEW AND CASE REPORT

By Dr. M. SUBRAMANIAM, Psychiatric Specialist,
C.M.H. Tanjong Rambutan,
M.B., B.S. (Malaya) D.P.M. (Eng.).

This paper is not meant to answer questions, but in fact, to pose some questions. This may seem an unsatisfactory state of affairs, but Psychiatry is in its infancy and more questions can be asked of it than answered.

Migration had occurred from time immemorial. All biological organisms have tended to move in search of fresh pastures, to escape from the overcrowding and struggle for existence in their home land. The migrating population is a selected one. For one reason or other which varies with each migratory occurrence, a different segment of the population migrates. Some of these reason are multiple and difficult to interpret.

Psychiatrists have always visualised and hoped for psycho-social factors to explain some of the distressing mental illnesses which afflict mankind. This hope, however, is contained by the new realisation, that almost all mental illnesses have a complex multifactorial causation.

A genetic predisposition is almost established in the syndrome, called Schizophrenia. However, this genetic predisposition is not absolute, all studies have shown that psychological or psycho-social enviromental factors play a part as well. It is to discover these factors (which we hope are preventable) that epidemiologists have been getting excited.

Those who are biologically orientated like to explain away the differences found epidemiologically between two groups of cultures. Those who are socially orientated try to advance hypotheses (W. Dunham). The finding of significant rate differentials between different subgroups of population has been therefore a major preoccupation of epidemiologists. The psycho-social characteristics of the two subgroups come under intense study, and correlations are sought with the rate differences discovered by statistical methods.

One of the fields in which this work has been most emphasised is migration and mental disorder, in particular Schizophrenic disorder.

In America much research in the early part of this century, showed a higher prevalence rate of Schizophrenia among immigrants when compared with natives. These studies and many more subsequent ones, used hospital data (which in most cases are unsatisfactory). The work quoted above lacked sophistication in statistical design, and used nothing but crude rates.

Malzberg who standardized rates obtained from hospital figures as regards sex, age, race, etc., showed that much though not all of the differences in rates were false. Odegaard studied carefully the rates for Norwegians who migrated to Minnesota with Norwegians in Norway. He found distinctly higher rates for the immigrant Norwegians in Minnesota.

Clark performed another study in which he too recorded a higher rate among immigrants than natives. It has been the impression too in U.K. that immigrants have a higher prevalence rate of schizophrenia than the natives. In Singapore, however, Murphy concluded that native rates were higher than immigrant rates. In Hawaii psychotic breakdown was greatest among Okinawans though Moloney, a Psychiatrist, asserted that psychosis was rare among native Okinawans, in Okinawa itself.

Migration can also mean movement within a single country. Odegaard found, surprisingly enough, that mental disorder rate was higher only in migrants in Oslo. In fact other excessively mobile groups were more healthy.

At this stage I would like to beg your indulgence, and stretch the meaning of the word migration. I would like to use it also for social mobility (migration strictly being, geographic mobility) as the common result,

thinking in Psychiatric terms, is a movement into a different cultural group.

Now, social mobility may be a movement from one social level to another. This kind of movement is becoming very common these days.

Hollingshead and Redlich, found that the lowest social class had the highest rate of schizophrenia and vice versa. As one explanation of this phenomenon postulates a "drift," a form of passive migration, I mention it in this context.

Another finding which has been repeated a number of times is that of Farris and Dunham, that the highest concentration of schizophrenics occurs in the central disorganised parts of a city. Again as above, one explanation of this phenomenon is "drift."

It is clear, therefore, that general agreement seems to lie in this field. However, certain deficiencies have to be pointed out in these studies.

First of all hospital data have been used to estimate the incidence of mental illness. In a country where an adequate coverage exists this estimate may approximate to the truth. In most countries, however, hospital data are a poor measurement of the true incidence of the illness.

Secondly, problems inherent in all work in Psychiatric Epidemiology have to be faced. The definition of a case, is something one cannot do with any degree of accuracy. The conclusion from comparison of work by different authors is of doubtful significance. It has been shown (Eaton and Weil) that the more intensive the investigation the greater the number of cases. The finer the mesh of your net, the more psychiatric pathology you discover. Rennie, in the Midtown Survey found that 75% of the population had symptoms of anxiety. This is a warning against trying to be too wide in your definition.

Thirdly, two populations cannot be compared unless the variables we are not interested in are controlled. Age and sex structure of the population alone will produce differential rates in Schizophrenia. Occupational status and social class are other factors. It is obvious that an immigrant population is very different in these characteristics from the host population. Most immigrants are young males. They often come from a lower social class which feels the pressure in the home country. Again, voluntary migration produces a different type of individual from forced migration. All these factors are going to operate in the rate differentials you laboriously uncover.

However, we in Psychiatry are never used to getting ideal results. We have to work somehow with rather shaky data. Psychiatrists are, however, convinced that something will be turned up by their efforts.

It would seem tentatively then, that higher rates of schizophrenia occur among migrants. The correlations having been established, it is hoped to discover a causal relationship, if any. Of course, it is realised that association need not necessarily mean causation.

If we examine the process of migration from the psychological point of view, we are first struck by the fact that the immigrant is going to have some difficulty in adjusting himself. He has come to an alien culture, he has to learn the language and the rules by which this new society lives. To make it worse he is one of the minority and has lost his own traditional props. It is not surprising therefore that Hippocrates long ago recognised that "mental perturbation" occurred in immigrants. A term "nostalgia" was used for the homesickness, which many of us have experienced in a foreign environment. Some even went further and described an "alien's paranoid reaction." Again most of us can confirm this reaction. Very few of us would have had absolutely no feelings of suspicion and fear when set among a large group of foreigners.

I would maintain, however, that none of these reactions are qualitatively similar to Paranoid Schizophrenia which they most resemble. Paranoid reactions are based on projection mechanisms which have been demonstrated in normal psychological processes. This point, however, is controversial.

The association having been demonstrated, psychiatrists with sociological orientation,

using the pointers mentioned above, suggest that life in an alien culture is in itself *a factor* in the production of schizophrenic illness. It is visualised that social isolation, the loss of social cohesion, an "anomie" using the term of Durkheim, tends to precipitate the schizophrenic illness. Anomie, seems to have been demonstrated as a Potent factor in suicide and so was naturally thought of in this context. The other view is that there is a great tendency for the pre-schizophrenic (i.e., a person who is going to develop schizophrenia) to move away from his traditional group. Inter-personal relationships are difficult and he moves on searching for a kind of loneliness. In other words he actively seeks isolation. This resulting release from "burdensome relationship" may indeed be therapeutic, as one British study shows that discharged schizophrenics do best when they go out and live with strangers rather than their own wives or mothers.

However, a number break down and this increases the rate of schizophrenics in the immigrant group. This is the view taken by Odegaard who called them an "adversely self-selected group."

A third explanation is that the stresses of the process of migration itself may contribute to the development of the disorder. Odegaard, however, "found no colouring of the illness in relation to migratory stress" which would indicate that the latter was productive of the illness (quoted from Mayer-Gross, Slater, Roth).

In the case of the findings of high rates of Schizophrenia in the lowest social class two explanations have been put forward. One is that conditions in that class itself contribute to the development of Schizophrenia. The other explanation is "drift" a form of passive "migration." In support of the latter Morrison in England found that fathers of Schizophrenics were rather evenly distributed throughout the social classes.

The finding of Farris and Dunham could also be explained by postulating that psychosocial conditions of disorganised environment (mainly, isolation) produce the disease. A drift theory (here an active process of self-segregation) is favoured by Gerard and Houston. Hare in his Bristol work found evidence supporting both hypotheses.

Malaya* is one of those rare countries in which nearly half the population has come from elsewhere, and what is more, the immigrants are not of one racial or *cultural stock and differ markedly* from the host population. Malaya can, therefore, be the happy hunting ground for the social anthropologist, and the epidemiologically minded psychiatrist. An experiment of nature can be utilised. The lack of staff and proper hospital data have made it impossible to investigate these changes at present. A field survey is long overdue. The population of the Federation is about 7 million of which about half are Malays or of Indonesian origin, one third are Chinese and one tenth Indians. Eurasians and Europeans form only about 2%.

The main migration of the Chinese occurred from about 1880 to 1920. The increase of the population in the early part of this century is (mainly) due to immigration. After about 1931 there has been a sharp drop in Chinese immigration and after "Merdeka" (Independence) to all purposes, nil.

This is rather disappointing to us, as it would seem that the natural experiment was over while we were sleeping. Most young people to-day would have been born in Malaya. Nevertheless, to discover significant differential rates between recent, and not so recent residents and the various races is going to be very interesting.

I shall now come to the case. I hope that the impression is not created that by presenting one case of Schizophrenia associated with migration I am going to establish any case for whatever point of view. Sainsburg and Stengel, felt that careful individual clinical studies should be associated with the study of mass aspects of suicide. Epidemiological hypotheses are postulated on clinical hunches, and clinical examination follows the establishment of an epidemiological hypothesis. As schizophrenia has a multiple aetiology and as we do not know whether we are dealing with an entity, a syndrome, or even an individual

* This paper was prepared before the Formation of Malaysia and all references to the Federation of Malaya exclude all other Malaysian territories.

personality reaction, isolated studies are of no value by themselves. However, I feel Sainsbury's contention can be extended to this field and detailed examination of cases which are unusual in respect to migration may contribute to the advancement of knowledge.

My case is one which did not develop schizophrenia with emigration from Malaya and on his subsequent stay in a foreign country *till four years later*. His illness developed during the last three months of his stay in a foreign land and reached its peak one week after his return to his own cultural background and thus presents some unexpected features.

CASE A

Mr. A, a young energetic boy conceived the idea of hitch-hiking to a European country. His pre-morbid personality, as observed by his school report, was that of an extroverted highly intelligent youngster keen on athletics and a "leader." He came from a relatively poor family and his idea of hitchhiking was taken kindly by everyone concerned. He was encouraged by the Outward Bound School and even by officials in the upper echelons of society.

What is remarkable is that this youngster successfully made his way to his desired destination. He must have had a winning and pleasant personality, as he had obtained help from many people.

He reached country B (the country will be unnamed to prevent his identification and consequent embarasment to relatives) and got through a special course in a world famous University. Throughout this period he was greatly liked, helped and admired by men of professional standing. He seemed to have made friends easily and saw a great part of the country with organised student groups. He seems to have made an excellent adjustment at that stage. Two years after his arrival, however, he had a mild depressive episode which cleared up quickly. I could find no evidence that there was any likelihood that this was an early stage of his schizophrenic illness (a debatable point, however). He made a full recovery moreover, and then went to another European Country (Country C) in which, though he lacked an entrance qualification, he was judged suitable to take up a course in the University. He was so liked by the Professor, that he tried to help him to get admission to the University of Singapore. The University of Singapore very favourably reacted to this and even wanted to make special arrangements to enable him to sit for the entrance examination for this University in Country C.

I have some letters from the people who knew him in Country C, who deny having had *any suspicions* of him developing a mental illness. He, in fact, made an extraordinarily good adjustment, and only during the last three months of his say in this country, (he had been in this country for nearly two years) did he begin to have symptoms. The first symptom seemed to have originated suddenly. He began to feel that he was changed in some way after accepting a cigarette from an Indonesian, whom he met in a train. This symptom is of the nature of a primary delusion. The other symptoms he had at this stage were rather mild and his illness was *not apparent yet*.

In fact, when he returned to Malaya (he was planning to enroll in one of the departments of the University) he was seen by one of the academic officials who wrote "as a qualified social worker with many years of experience of dealing with disturbed persons I think I would have detected any *overt* indications of disturbance at that interview" (italics are my own).

One week after his return the illness took a fulminating form. He suddenly felt that Malaya was changed and Communistic. He became extremely suspicious and fearful. He began to hear voices. He had clearly developed into an undoubted case of Paranoid Schizophrenia.

The case that has been reported is of great interest. We have here a young man withstanding the so-called adjustment difficulties of "acculturation" living an active and useful life, adapting well while in an alien culture only to succumb to a paranoid schizophrenic illness during the last part of his stay there, when one would expect *adjustment difficulties* to be the least intense.

Even if the depressive episode were taken as the beginning of the illness *a good two years* intervened between his arrival and illness.

The other questions that arise are, are *readjustment* difficulties (to his original native environment) a factor in the development of his illness? It would be remarkable indeed if this were so. Could five years in a foreign country produce such a change that he finds reversion to his native culture so traumatic? Further, I feel that his illness commenced *before* his return, though it became overt only after his arrival in this country. For the same reason the stress of travelling would mean even less as a causative factor. It must be remembered moreover that he hitchhiked to Europe, but returned by air.

Could he have been compelled to travel, by that strange pre-morbid characteristic postulated of Schizophrenia? This might plausibly explain the association of his illness with migration. However, the psychosis developed more than four years after he left home, but this still does not abolish this theory.

Are all these factors quite unrelated to his illness which is of patho-physiologic origin and unrelated to any psycho-social cause?

This individual case is an enigma as is the illness in general.

I must now close this review and case report, having posed more questions than answers! A very rough and ready examination of the figures of the Central Mental Hospital invites some further questions. The population of our "catchment area" by race can be divided in percentages into:—

Malaysians	42.7%
Chinese	41.4%
Indians	13.9%
Others	2%

TABLE I

(To avoid confusion, please note, the term "Malaysian" is used according to the census).

This is based on the 1961 estimation of the population of the 1957 census.

The proportions in percentages of cases diagnosed as schizophrenia (first admission) in 1962 were:—

Malaysians	27.0%
Chinese	52.4%
Indians	19.7%

TABLE II

It can thus be seen that Malaysians who form 42.7% of the population produced only 27.9% of the schizophrenics and the Chinese who are 41.4% of the population produced 52.4% of the schizophrenics.

Though I have not made an estimate for the population in 1962, the natural increase in population in 1960 being 32.1 (per 1,000) for Malaysians, 29.8 for Chinese and 34.7 for Indians would seem to indicate that the relative proportions would be approximately the same in 1962 as during the 1961 estimation.

The differential proportions noted appear to be significant and may mean almost anything, from the reluctance of the rural Malay to come to hospital, the low visibility and high tolerance by others of his race for psychoses, the distance from hospital and consequent difficulty in getting to hospital, or *even an actual lower rate* of Schizophrenia among the Malays who are the longest settled race in the country. If the proportions in percentages are taken for all mental disorders admitted we get (first admission 1962):—

Malaysians	28.9%
Chinese	50.1%
Indians	21.0%

TABLE III

It will be noticed therefore that there is very little difference in the proportions as compared with Table II.

Unless the aetiological factors pertaining to schizophrenia are shared in common by all other mental disorders (a state, I consider, most unlikely) the percentage proportions in Table III would indicate that the Chinese choose hospitalisation more intensively. This

would be more so as the Chinese being mainly an urban population, would find that psychotic behaviour is easily differentiated and not tolerated.

This paper is of a preliminary nature and I hope when facilities become available a proper census or field survey based on unbiased samples will provide many answers, obscure in Psychiatry all over the world.

ACKNOWLEDGEMENT

I would like to thank Dr. Ten Yoon Fong, Pem. Pengarah Perkhidmatan Perubatan, Semenangjong Tanah Melayu, for permission to print this article.

REFERENCES

Brown C. W. Carstairs G. M. and Topping G. Post Hospital (1958): Adjustment of chronic mental patients — Lancet **2:** 685-689.

Paris R. E. C. Dunham H. W. (1939): Mental Disorders in Urban Areas. An Ecological Study of Schizophrenia and other psychoses. Chicago, University of Chicago Press. 270 pp.

Hollingshead A. M. and Redlich F. C. (1954): Schizophrenia and Social Structure. Am.J. Psychiatry 110-11.

Hare, E. H. (1956): Mental Illness and Social class in Bristol J. Mental Science **102:** 349-357; 753-760.

Hoch P. H. and Zubin (1961): Comparative Epidemiology of the Mental Disorders. Grune and Straton.

Kiyoshi I. (1955): A Comparative Study of Mental Illness Differences among the Okinawan and Naichi Japanese in Hawaii (M.A. Thesis) University of Hawaii.

Kino F. F. (July 1951): Alien's Paranoid Reaction, Journal of Mental Science. **97:** 589-594.

Malzberg B. and Lee E. S. (1956): Migration and Mental Disease, New York Social Science Research Council.

Moloney J. C. Biddle C. R. (Nov. 1945): Psychiatric observations in Okinawa Shima; Psychology of Okinawan and Psychiatric Hospital in Military Government, Psychiatry. **8:** 391-401.

Mayer — Gross W. Slater E. Roth M. (1960): Clinical Psychiatry — Casell and Company.

Susser M. W. and Watson W. (1962): Sociology in Medicine, Oxford University Press.

Zubin (1961): Field Studies in the Mental Disorder. Grune & Straton.