

MENTAL DISEASES IN PEKING BETWEEN 1933 AND 1943

By

LIANG-WEI CHU

and

MEI-CHEN LIU

Brockhall Hospital, Langho, nr. Blackburn, Lancs.

THIS report is based on a survey of 1,716 Chinese patients admitted to the Peking Municipal Psychopathic Hospital during the years 1933–1943. It is mainly concerned with a statistical presentation of the relative frequency of the various mental disorders and with certain other data which may be of interest to psychiatrists and other members of the medical profession.

As early as 1912, Peking already had an asylum for the custodial care of insane patients (3, 16). Towards the end of 1933, the Peking Union Medical College, after negotiation with the Municipal Health Department, undertook the re-organization of the asylum into a Municipal Psychopathic Hospital, which for some years was the institute for teaching neuropsychiatry to medical students. Because of limited bed capacity, the number of patients cared for at any one time rarely exceeded 300. From the re-organization of the Hospital in 1933 up to the end of 1943, a total of 1,808 patients were admitted. Of these patients, 18 were foreign nationals and 71 had no or incomplete records, leaving 1,716 cases available for the present study.

This paper is based on work done between 1942–1944 when the authors were resident psychiatrists in the Peking Psychopathic Hospital.

PRESENTATION OF STATISTICAL DATA

Sex and Age. Among the 1,716 patients, 1,052 were men and 664 women, giving a ratio of about 3 males to 2 females.

The age of these patients at the time of first admission ranged from 11 to 73 years, with an average of 33·5. With a few exceptions, the patients were admitted within two years of the onset of illness. The age distribution of the patients is given in Table I. About two-thirds of them were young adults between 20 and 40 years of age. Patients over 50 years of age constitute only 9·8 per cent. of the total. Both male and female patients have practically the same age distribution.

Birthplace and Race. The majority of the patients before admission were residents of Peking or its vicinity. Enumeration of the native provinces of these patients showed that 83·8 per cent. of them came from North China and 14·1 per cent. from South and Central China. In 2·1 per cent. of the cases, these data were lacking. It is interesting to note that according to the census by the Municipal Police Department in 1941 (20), barely 4 per cent. of the residents of Peking came from provinces in South and Central China, yet 14·1 per cent. of our patients had their native homes in these provinces.

TABLE I
Age Distribution of the Mental Patients

Age Groups	Total		Males		Females	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
10-14	3	0.2	2	0.2	1	0.2
15-19	92	5.4	62	5.9	30	4.5
20-24	302	17.6	198	18.8	104	15.7
25-29	334	19.5	206	19.6	128	19.3
30-34	303	17.6	187	17.8	116	17.5
35-39	205	11.9	118	11.2	87	13.1
40-44	160	9.3	91	8.7	69	10.4
45-49	135	7.9	82	7.8	53	8.0
50-54	80	4.7	51	4.8	29	4.4
55-59	57	3.3	33	3.1	24	3.6
60-64	17	1.0	10	0.9	7	1.1
65 and over	14	0.8	7	0.7	7	1.1
Unknown	14	0.8	5	0.5	9	1.3
Total	1,716	100.0	1,052	100.0	664	100.0

As to racial classification, 1,233 patients were Chinese, 119 Manchus, 15 Mohammedans (Central and West Asian origin) and 4 Mongolians. In 345 cases this information was not recorded.

Agencies Sending Patients to Hospital. The agencies responsible for sending patients to the hospital are given in Table II. At first, the patients were committed chiefly by the police, but later on more patients were sent in by their relatives for hospitalization and treatment.

TABLE II
Agencies Sending Patients to Hospital

Agencies	No.	Per cent.
Family	822	47.9
Police	745	43.4
Public institutions	132	7.7
Not recorded	17	1.0

Diagnostic Classification. The diagnoses are grouped according to the Condensed Classification of the American Psychiatric Association (18). Both number and percentage of the various types of psychosis among the 1,716 patients are shown in Table III overleaf.

As shown in the table, schizophrenia ranked first, including nearly one-third of the total admissions. Manic-depressive psychosis with 22.1 per cent. was second. General paresis, psychoses with psychopathic personality, epileptic psychosis, psychosis with other infectious diseases, psychoneurosis, psychosis with mental deficiency, etc., then followed closely one another. Certain psychoses showed notable sex differences. Among male patients, general paresis, psychosis with other infectious diseases, alcoholic psychosis and epileptic psychoses had higher percentages as compared with female patients. The females had a higher incidence in senile psychosis, involutional psychosis, psychosis due to other metabolic diseases and manic-depressive psychosis.

Race and Types of Psychoses. A study of racial difference in the incidence of various types of psychoses is not very reliable because the number of cases in the present survey is small. However, Kao, Ting and Hsu (7), reporting on a

TABLE III
Classification of the Diagnoses

Diagnoses	Number			Percentage		
	Total	Male	Female	Total	Male	Female
With Psychoses:	1,660	1,017	643	96.7	96.7	96.8
1. Psychoses with syphilitic meningo-encephalitis (general paresis)	125	104	21	7.3	9.9	3.2
2. Psychoses with other forms of syphilis of central nervous system	6	4	2	.3	.4	.3
3. Psychoses with epidemic encephalitis	17	9	8	1.0	.9	1.2
4. Psychoses with other infectious diseases	71	55	16	4.1	5.2	2.4
5. Alcoholic psychoses	21	20	1	1.2	1.9	.1
6. Psychoses due to drugs or other exogenous poisons	7	3	4	.4	.3	.6
7. Traumatic psychoses	3	3	0	.2	.3	0
8. Psychoses with cerebral arterio-sclerosis	17	11	6	1.0	1.0	.9
9. Psychoses with disturbance of circulation	4	2	2	.2	.2	.3
10. Psychoses with convulsive disorders (epileptic psychoses)	82	64	18	4.8	6.1	2.7
11. Senile psychoses	28	11	17	1.6	1.0	2.6
12. Involutional psychoses	25	6	19	1.4	.6	2.9
13. Psychoses due to other metabolic diseases, etc.	22	8	14	1.3	.8	2.1
14. Psychoses due to new growth	1	1	0	.1	.1	0
15. Psychoses associated with organic changes of the brain	5	4	1	.3	.4	.1
16. Manic-depressive psychoses	380	189	191	22.1	18.0	28.8
17. Dementia praecox (schizophrenia)	559	340	219	32.6	32.3	33.0
18. Paranoia and paranoid conditions	39	30	9	2.3	2.8	1.3
19. Psychoses with psychopathic personality	84	53	31	4.9	5.0	4.7
20. Psychoses with mental deficiency	60	39	21	3.5	3.7	3.2
21. Undiagnosed psychoses	37	26	11	2.2	2.5	1.6
Without Psychoses:	56	35	21	3.3	3.3	3.2
22. Without psychoses	44	29	15	2.6	2.7	2.3
23. Psychoneuroses	67	35	32	3.9	3.3	4.8
24. Primary behaviour disorder	12	6	6	.7	.6	.9
Grand Total	1,716	1,052	664	100.0	100.0	100.0

smaller number of patients, came to the conclusion that there is a definite relative increase in the ratio of parergastic psychosis (schizophrenia) to manic-depressive psychosis in the Manchus as compared with Chinese patients. We have made a comparison between Chinese and Manchu patients with reference to the two most frequent psychoses to see if there is any significant difference.

TABLE IV
Incidence of Schizophrenia and Manic-depressive Psychosis Among Chinese and Manchu Patients

Race	Schizophrenia	Manic-depressive Psychosis	Total
Manchu	34	19	53
Chinese	414	280	694
Total	448	299	747

$$\chi^2=0.34.$$

Among 1,233 Chinese patients, there were 414 cases (33.6 per cent.) of schizophrenia and 280 cases (22.7 per cent.) of manic-depressive psychosis (ratio of schizophrenia to manic-depressive psychosis—1.48:1). Among 119 Manchu patients, there were 34 cases (28.6 per cent.) of schizophrenia and 19 cases (16.0 per cent.) of manic-depressive psychosis (ratio of schizophrenia to manic-depressive psychosis—1.79:1). Though the percentage of schizophrenia among the total admissions was higher among Chinese patients, yet the ratio of patients with schizophrenia to those with manic-depressive psychosis was slightly higher among the Manchus. However, if we evaluate the significance of the difference by the χ^2 test (4), χ^2 is found to be only 0.34 (with χ^2

below 4, the observed difference is generally not considered as statistically significant). Hence, the result does not support the view that schizophrenia is more common among Manchus.

Outcome of Hospitalization. The fate of the patients up to the end of 1943 is shown in Table V. Because of shortage of beds, most of the patients, after a period of observation and treatment, were discharged to the care of their families even though there might have been no definite improvement in their mental condition. Among our patients, 220 had one or more re-admissions (15.7 per cent. of total discharges). Though the majority of the patients were young adults, 14.5 per cent. were known to have died while in the hospital or shortly after discharge. The most common causes of death were pulmonary tuberculosis and bacillary dysentery.

TABLE V
Outcome of the 1,716 Patients at the End of 1943

	Outcome	No.	Per cent.
Discharged	1,400	81.6
Recovered	194	11.3
Improved	667	38.9
Unimproved	539	31.4
Died	249	14.5
Still in hospital	67	3.9
Total	1,716	100.0

DISCUSSION

Though mental diseases in China are essentially the same as in western countries, as observed by a number of neuropsychiatrists (1, 8, 11, 12, 15, 16, 19), racial and cultural differences may give rise to difference in the relative prevalence of various types of mental disorders. In the following, comparisons will be made chiefly with statistics from the United States, because the American classification was in general use in Peking at that time and consequently the data are more readily comparable.

The most notable difference between this group of patients as compared with similar groups in the United States (2.9) is that our patients consisted of considerably fewer persons of old age. The average age at the time of first admission among our patients was 35.5 years, while that of the patients admitted to the mental hospitals in New York was 45.5 years (9). In our data, patients over 50 years of age constituted only 9.8 per cent. of the total, while in the American statistics such patients amounted to 37.5 per cent. As the incidence of mental diseases is known to be higher in the older age groups, one would expect that there would be proportionately more old people among the mental patients than in the general population. However, the census of Peking in 1941 (20) showed that 14.3 per cent. of the city's population were over 50 years of age. Thus, there were fewer old people among our patients than in the population. Apparently many patients of advanced ages did not come to the Psychopathic Hospital.

There was a strikingly low percentage of senile and arteriosclerotic psychoses among our patients. In our data, these two groups of psychoses amount to only 2.6 per cent. of the total, while statistics from New York and Massachusetts give 22.2 per cent. and 18.6 per cent. respectively (2.9). That

in China fewer people live to old age and that arteriosclerosis is supposed to be less common here can partly account for the low percentage of these psychoses. However, the main reason is probably due to the fact that those people who did live to the age at which these degenerative diseases occur were not uncommonly leading an easy life at home, being taken care of by their children. Some degree of queerness and disorderly conduct could usually be tolerated. Moreover, some people would consider it a disgrace to the family if they sent their elderly people to the mental asylum. A large number of these patients probably remained in the care of their families.

Numerically, schizophrenia is the leading category in this series of cases, followed by manic-depressive psychosis. These two "endogenous" psychoses together comprise over one half of the total cases. This is attributable to the fact that these diseases commonly attack young adults who constituted the bulk of our patients. As in most hospital statistics, the percentage of schizophrenic cases is considerably higher than that of manic-depressive psychoses. However, in some published reports from Canton (6, 10) more patients were diagnosed as having had manic-depressive psychoses than schizophrenia. This has been explained by the difference in the temperament of the Southerners favouring the development of affective psychoses (16). Possibly a difference in diagnostic criteria may be responsible for this discrepancy.

General paresis, with 7.3 per cent. of the total admissions, ranked third in the list. Though earlier writers gave the impression that this disease was rare in China, reliable statistics certainly did not support this point (5, 14). Many cases in the present series belonged to the classical "expansive" type. Only a small number of the patients had a history of having had arsenical treatment in the past. It is to be noted that this disease occurs four times more frequently among male than female patients.

There are 17 cases of psychoses with epidemic encephalitis in our series. This type of psychosis has seldom been reported from other parts of China. Alcoholic psychosis which constitutes about one-tenth of psychiatric patients in America comprised only 1.2 per cent. of our patients. The incidence of this disease is not high in other parts of China (10, 16) or in Japan (13).

In China the taking of alcoholic drink was most unusual except as part of a meal, but whether the difference in incidence of alcoholic psychosis is due to this, or to a higher tolerance, or to the possibility that the amount of alcohol consumed seldom reached the quantity required to produce deleterious change in the central nervous system is not known. In the present series, other cases of psychosis due to intoxication were all, with the exception of one following carbon monoxide poisoning, the result of addiction to opium. Though opium addiction was not uncommon in China, mental disorders attributable to this drug habit were not frequently seen. Epileptic psychosis with 4.8 per cent. of the total admissions had a somewhat higher percentage as compared with American statistics.

Since an unknown number of mental patients in the city did not come to the Psychopathic Hospital, it is not possible to estimate the incidence (annual rate of new cases) or prevalence (number of patients in the population) of mental diseases in Peking from the hospital data alone. Although without a careful survey the prevalence rate cannot be obtained with any reliability, two estimates have so far appeared in the literature. Gamble (3) stated in his book on Peking that the police gave the number of insane as 1,366 when the city's population was 811,556 in 1920, giving a prevalence rate of 168.3 per 100,000 population. McCartney (11), basing on hospital reports and answers to inquiries, estimated

that there were 1,341,600 insane persons in China. Taking the population of China as 400 million, the prevalence rate would be 335.4 per 100,000. The rate for the United States in 1936 was 335.3 (9), while in Japan the rate in 1935 was 120.4 (17). In spite of this there are reasons for believing that there are relatively fewer mental patients among the populace in China. Firstly, since the life expectancy of the Chinese people is generally considered to be shorter than that of the Americans or Europeans and since mental diseases occur more frequently among people of the older ages, the Chinese people with fewer old persons will naturally have a lower incidence of mental diseases. Secondly, for want of proper management, insane persons in China died off more quickly than patients kept in well-equipped mental hospitals in the West. Even if we assume a very low prevalence rate of 100 per 100,000 population, there would be about 2,000 mental patients in Peking, a number far exceeding the accommodation of the Psychopathic Hospital at that time. The majority would have had to be cared for in their own homes.

SUMMARY

In a survey of 1,716 mental patients admitted to Peking Municipal Psychopathic Hospital between the years 1933 and 1943, it has been shown that the patients were composed of relatively more young adults and fewer old people as compared with similar groups of patients in the United States. Schizophrenia, comprising 32.6 per cent. of the total admissions, headed the list. Manic-depressive psychosis with 22.1 per cent. ranked second, followed by general paresis, psychosis with psychopathic personality, epileptic psychosis, etc. In contrast to the high incidence of senile and arteriosclerotic psychosis in the western countries, these two diseases together amounted to only 2.6 per cent. of our cases. Probably many such patients remained in the care of their families. Alcoholic psychosis which has a high incidence in America was infrequently encountered. Epileptic psychosis and psychosis with other infectious diseases seem to have had somewhat higher percentages.

It was estimated that the Psychopathic Hospital could accommodate only a small percentage of the mental patients in Peking. Due to shortage of hospital beds, many of those who had been admitted had to be discharged to the care of their families, even without improvement in their mental conditions. Among the patients in this survey, only 11.3 per cent. were considered as having recovered from their mental illness and among those discharged from the hospital, 15.7 per cent. had one or more re-admissions. During the ten years covered by the present study, 14.5 per cent. of the patients are known to have died. Since an unknown number of patients never came to the Psychopathic Hospital, the incidence or prevalence rate of mental diseases in Peking during the time in question cannot be estimated on the data herein presented.

REFERENCES

1. BOWMAN, K. M., "Psychiatry in China", *Digest Neurol. Psychiat.*, 1948, Series 16, p. 328.
2. DAYTON, N. A., *New Facts on Mental Disorders*, 1940. Baltimore: C. C. Thomas.
3. GAMBLE, S. D., and BURGESS, J. S., *Peking, A Social Survey*, 1921. New York: George H. Doran Co.
4. HALL, M. F., *Public Health Statistics*, 1942. Paul Hoeber, Inc.
5. HARVEY, J. L., "Cases of general paresis in China", *Chin. Med. J.*, 1920, 34, 123.
6. HOFFMAN, J. A., "A report of the patients discharged from John G. Kerr Hospital for Insane during 1912", *Chin. Med. J.*, 1913, 27, 369.
7. KAO, C. C., TING, T., and HSU, E. H., "Content of thought: a review of the mental status with special reference to the paregastic reaction type", in Lyman's *Social and Psychological Studies in Neuro-psychiatry in China*, 1939. Peiping.
8. LYMAN, R. S., "Psychiatry in China", *Arch. Neurol. Psychiat.*, 1937, 37, 765.

9. MALZBERG, B., *Social and Biological Aspects of Mental Diseases*, 1940. Utica, N.Y.: State Hospital Press.
10. MAXWELL, J. L., *Diseases of China*, 1929, 2nd edition.
11. MCCARTNEY, J. L., "Neuropsychiatry in China; a preliminary observation", *Chin. Med. J.*, 1926, **40**, 617.
12. *Idem*, "Neuropsychiatry in China; a retrospect of diagnosis", *Chin. Med. J.*, 1926, **40**, 831.
13. MIYAKE, K., "On the psychoses observed in Japan", *Trans. 6th Congress F.E.A.T.M.*, 1925, Vol. I, p. 801.
14. PFISTER, M. O., "Syphilis of the nervous system in China", *Cauduceus*, 1927, **6**, 116.
15. REED, A. C., "Insanity in China", *Boston Med. Surg. J.*, 1914, **152**, 572.
16. SCHALTENBRAND, G., "Psychiatrie in Peking", *Zbl. ges. Neurol. Psychiat.*, 1931, **137**, 168.
17. TSURUMI, M., "Quelques données statistiques sur les affections mentales en Japon", *Bull. Off. int. Hyg. publ.*, 1937, **29**, 1683.
18. WHITE, W. A., *Outline of Psychiatry*, 1935, 14th edition.
19. WOODS, A. H., "Nervous diseases of the Chinese", *Arch. Neurol. Psychiat.*, 1929, **21**, 542.
20. *Monthly Statistical Bulletin of Peiping Municipal Administration*, Oct., 1941 (in Chinese).