

A TEN-YEAR FOLLOW-UP STUDY OF SCHIZOPHRENIA

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SYNOPSIS

A cohort 391 schizophrenic patients admitted to Woodbridge Hospital in 1975 were interviewed 10 years later. There were 224 males (57%) and 167 females (43%). The majority were single (70%), Chinese (82%), and below age 30 (70%). About 64% had subsequent readmissions and 36% had no readmissions. Each following year about 26% were readmitted for a mean duration of 19.6 days per admission. The cohort stayed a total of 27,069 patient-days during the 10 years period. Ten years later 29% of the original cohort was well and working, 25% well but not working and 46% was still receiving treatment. Our results are worse (54% good outcome) compared to that of Hong Kong (65%), but they are better than those from the developed countries which was 22%,⁽⁷⁾ and 33%⁽⁹⁾ for equivalent follow-up periods. The WHO study⁽⁴⁾ which used uniform criteria confirmed that schizophrenic patients in the centres in developing countries had considerably better course and outcome than developed countries.

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INTRODUCTION

The aim of this study is to follow up a cohort of schizophrenic patients and to assess their outcome after 10 years. Long term follow-up studies on schizophrenia in developing countries are few. In some studies, the results suggested that schizophrenic patients in developing countries, have a better overall prognosis.^(1, 2, 3, 4, 5)

SUBJECTS

1. The patients were all first admissions to Woodbridge Hospital in 1975⁽⁶⁾ and diagnosed as suffering from schizophrenia by the first author.
2. Only Singapore residents who were aged 59 and below and who had stayed in the hospital for at least 3 days were included in the study.

METHODS

1. The records of these patients were traced in 1985 and their clinical presentation during their first admission and the dates of their subsequent readmissions were recorded systematically. The information obtained included the duration of their first hospital admissions and the number and duration of their subsequent admissions.
2. The addresses of these patients were traced from the National Registration Office.
3. In 1985 the patients were interviewed by a trained psychiatric nurse who made a home visit to find out their mental health, their work status and their treatment during the past 6 months.
4. A simple semi-structured interview was used by the psychiatric nurse. If the patients were not able to cooperate, their relatives would also be interviewed. If the patients were readmitted to the hospital, they would be assessed by one of the authors.

RESULTS

Characteristics of the Sample

There were 391 patients who satisfied the criteria for inclusion in the study. A breakdown of their basic characteristics is shown in table 1. There were 224 males and 167 females. They were mainly young adults. Their mean age was 27 years, and 70% of them were below age 30 years. The majority was Chinese (82%) and single (70%). About half (49%) had not completed their primary education and only 21% were working just before their first admission.

Course of illness

About 72% of the patients stayed for less than 2 weeks during their first admissions and 11% stayed more than 4 weeks. As shown in table 2, only 36% of the patients had one admission. The rest (64%) had up to 25 readmissions over the next 10 years. The frequency of readmission diminishes but the duration of stay increases with later years.

The subsequent course of the illness (table 3) showed that about 100 patients (26%) out of 391 original patients were readmitted each year from 1976, except for the last year (1984) when it dropped to about 71 (18%). During the ten years period from 1975 to 1985 the cohort stayed a total of 27,069

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Table 1
PROFILE OF SAMPLE

		MALE N = 224	FEMALE N = 167	TOTAL N = 391	%
Age	15-19	65	39	104	26.6%
	20-29	105	65	170	43.5%
	30-39	27	31	58	14.8%
	40-49	14	19	33	8.4%
	50-59	13	13	26	6.6%
Race	Chinese	173	147	320	81.8%
	Malays	26	9	33	9.0%
	Indians	21	10	31	7.9%
	Others	4	1	5	1.2%
Marital Status	Single	178	94	272	69.6%
	Married	45	69	114	29.2%
	Others	1	4	5	1.2%
Education Level	Pr or less	109	98	207	54.3%
	Sec	102	59	160	42.0%
	Above Sec	8	6	14	3.7%
	Not stated	6	4	10	
Work Status	Full-time	53	28	81	20.7%
	Part-time	52	23	75	19.4%
	unemployed	73	108	181	46.8%
	others	43	11	54	13.0%

Table 2.
RE-ADMISSIONS

RE-ADMISSIONS	NIL	1-2	3-5	6-10	11-25	TOTAL
MALE	80	61	45	22	16	224
FEMALE	61	53	29	15	9	167
TOTAL	141	114	74	37	25	391
PERCENT	36%	29%	19%	10%	6%	100%

Table 3
FIRST AND SUBSEQUENT ADMISSIONS

Year	Total Number Admissions	Mean Length of Stay	Total Patient- Days
1975	441	30.1	13,274
1976	114	15.1	1,721
1977	104	9.1	964
1978	116	9.8	1,137
1979	101	11.4	1,151
1980	114	14.8	1,687
1981	98	15.6	1,529
1982	108	17.9	1,933
1983	117	19.2	2,246
1984	71	20.1	1,427
10 years	1,384	19.6	27,069

patient-days. The mean duration of each admission was 19.6 days, and on the average each patient was admitted for about 69.2 days during the 10 year period.

Follow-up Interview — Final Outcome

In 1985 (10 years later), the patients were assessed for their mental state, their work status and their treatment during the past six months. The final outcome was divided into 4 categories.

- Categories 1 Not receiving treatment, well and working
- Categories 2 Not receiving treatment, well but not working
- Categories 3 Receiving outpatient treatment, not well
- Categories 4 Admitted for inpatient treatment

As shown in table 4, the final outcome showed that 29% of the patients were well and working, 25% were well and 46% still required treatment.

DISCUSSION

Systematic studies of schizophrenia in the West concluded that this serious mental illness had a bad prognosis. The International Pilot Study of Schizophrenia sponsored by the world Health Organization in 1966⁽⁴⁾ was a cross-cultural project involving 9 countries. In the two-year follow-up, about 65% of the patients in developing countries has a favourable outcome compared with 40% of the patients in developed countries.

The study by Murphy and Ramon (1971)⁽¹⁾ in Mauritius found that about 60% of schizophrenics were functioning normally after a twelve-year follow-up. In Hong Kong, a ten-year study of Chinese schizophrenics⁽²⁾ showed that 65% had good outcome or only mild deterioration.

Huber et al (1980)⁽⁷⁾ followed up 502 schizophrenic patients over 10-20 years and found that 22% showed complete remissions, and 45% had schizophrenic deficiency syndrome. The presenting symptomatology could not be

Table 4
FINAL OUTCOME DURING THE PAST SIX MONTHS

FINAL OUTCOME	MALE	FEMALE	TOTAL
Well and working	64 29%	50 30%	114 29%
Well but not working	49 22%	47 28%	96 25%
Outpatient treatment	84 37%	55 33%	139 35%
Inpatient treatment	27 12%	15 9%	42 11%
TOTAL	224 100%	167 100%	391 100%

used to differentiate between true schizophrenias and schizophreniform psychoses. Watt et al (1983)⁽⁸⁾ collected 121 schizophrenic patients from a therapeutic trial. At a 20 months follow-up 58% of the first admissions had good outcome. Females fared significantly better than males. McGlashan (1984)⁽⁹⁾ in his follow-up study of 163 schizophrenic patients in Chestnut Lodge found that two-thirds of the 163 schizophrenic patients were functioning marginally or worse at follow-up compared with one third in unipolar affective disorders.

Cross-national comparisons is often besetted by methodological problems. Differences may arise from criteria of diagnosis and assessment of outcome (what constitutes good or bad outcome). The WHO study measures outcome on five categories, emphasising on symptoms and social impairments.⁽⁴⁾ In the Hong Kong study, outcome is graded on four categories depending on symptoms and personality deterioration.⁽²⁾ In our study, outcome is classified into four categories, focussing on the ability to work, the absence of symptoms and outpatients treatment and inpatient treatment. We use a more strict definition of good outcome in which the patient must be free from symptoms and preferably gainfully employed. If the patient requires psychiatric treatment, this would be classified as poor outcome. Because of the dif-

ferences in criteria for good outcome, our results are worse (54% good outcome) compared to that of Hong Kong (65%), but they are better than those from the developed countries which was 22%,⁽⁷⁾ and 33%⁽⁹⁾ for equivalent follow-up periods. The WHO study⁽⁴⁾ which used uniform criteria confirmed that schizophrenic patients in the centres in developing countries had considerably better course and outcome than developed countries.

One reason for the better prognosis of schizophrenia in developing countries is that the patient usually returns to his family on discharge. The extended family will look after him, and because he is ill there is less demand on him. Lo & Lo (1977)⁽²⁾ found supportive relative one of the factors which affected the prognosis favourably. In developed countries, the nuclear family has fewer members to look after the patient and he may live in a hostel where there is less supervision and care.

The preponderance of Chinese patients does not indicate that schizophrenia is more common in the Chinese. Schizophrenia in Singapore is just as prevalent among the Indians. The Malays were under-represented. There are three reasons for this. Malay patients prefer to seek traditional rather than Western medical treatment when they suffer from mental illness. They have a stronger social support system and their relatives are more willing to treat them at home. Lastly because of they are natives of the country they are less prone to schizophrenia as it is well known that schizophrenia is more prevalent among migrants. Less male patients were married with females. This is understandable because marriage which is usually initiated by the male partner affects the male schizophrenic patients more because of their lack of volition which is an important symptom. Their educational level did not differ significantly from that of the Singapore Census 1970, with slightly less schizophrenic patients (3.7%) having tertiary qualifications than the general population (6.9%).

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