

A FOLLOW UP STUDY OF PATIENTS DISCHARGED FROM THE CRIMINAL PROCEDURE CODE

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ABSTRACT

Eighty-six male psychiatric patients discharged from the Criminal Procedure Code over a 5-year period were studied to determine their social, occupational and clinical outcome. The majority were young, single Chinese who had received little education and had suffered from schizophrenia. More than half had been hospitalised for up to 5 years. On discharge many were living with their relatives, 83% were working, 60% were socially isolated and about half were asymptomatic. Factors associated with their outcome were examined.

Keywords: forensic, psychiatric patients, schizophrenia, outcome

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INTRODUCTION

Wong⁽¹⁾ described the characteristics of male inpatients in a forensic ward at Woodbridge Hospital. In the present study we examined the outcome of patients from the same ward who had been discharged from the Criminal Procedure Code. The Criminal Procedure Code (CPC) empowers the hospital to remand patients who at the time of committing an offence were deemed by the courts to have been of unsound mind. Such patients are reviewed by a Visitors' Board comprising the Medical Director of Woodbridge Hospital and two visitors to the hospital. Upon the Board's recommendation that the patient may be discharged without danger of his doing injury to himself or to any other person, the Minister for Law may then order that the patient be discharged from the CPC. As the number of patients discharged per year was likely to be small, we decided to study a group of patients who had been discharged over a 5-year period between 1 January 1985 to 31 December 1989. The criteria for inclusion into the study were similar to those used by Wong⁽¹⁾ viz patients who were legally of unsound mind at the time the offences were committed. Patients who were transferred to the non-forensic wards were also included in the study as they also fulfilled the criteria of having been discharged from the CPC. Outcome was measured in terms of social, occupational and clinical variables.

METHOD

Names of patients who had been discharged from 1 January 1985 to 31 December 1989 were obtained from the ward register. Relevant information was obtained from hospital casenotes. Patients and their relatives were requested to attend

an interview at the hospital outpatient clinic. For those who were not on follow-up or who were unable to attend, a community psychiatric nurse from our team was asked to visit them at their place of abode. A questionnaire was used to record the necessary information.

The social and occupational involvement were rated according to the criteria used by Brockington et al⁽²⁾, with modifications (refer Appendix I). The mental state was assessed using a checklist of symptoms. In the case of patients with mental retardation, the presence of behavioural problems would be regarded as "symptomatic". Regularity of follow-up was defined according to whether the patient had attended more than 50% of his appointments.

Appendix I Definitions

Social Involvement

- | | |
|---------------------|--|
| Heavy involvement | - a person heavily involved with family, friends and hobbies. |
| Average involvement | - a person in contact with family, has at least one close friend and has a hobby. |
| Mild isolation | - a person with family contacts but no friends or vice versa. |
| Severe isolation | - a person with no contacts with family or friends and makes no attempts at socialisation. |

Occupational Involvement

- | | |
|-----------------------|--|
| Full time occupation | - full employment with evidence of ambition or enterprise. |
| Part time occupation | - a person who loses jobs without good reason or having periods of unemployment of less than 6 months in a year. |
| Occasional occupation | - a person with periods of unemployment lasting more than 6 months in a year. |

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RESULTS

There were a total of 86 patients in our study. Their demographic characteristics are shown in Table I.

Seventy-four percent of the patients were below the age of 39, a large majority were Chinese and unmarried(76%).

Fifty-one patients (59%) were of low education (including those with no education or up to primary school level). Thirty-three (38%) had secondary to tertiary education.

Table I - Demographic data of patients

	No. of patients	%
<i>Age (years)</i>		
< 20	5	5.8
20 - 39	57	68.3
40 - 59	19	22.1
> 60	5	5.8
<i>Race</i>		
Chinese	63	73.3
Malay	12	14.0
Indian	10	11.6
Others	1	1.1
<i>Marital Status</i>		
Single	65	75.6
Married	16	18.6
Widowed	1	1.2
Divorced	3	3.5
Separated	1	1.1
<i>Educational Level</i>		
No education	14	16.3
Primary	37	43.0
Secondary	29	33.7
Pre-U	2	2.3
University	2	2.3
Unknown	2	2.3

Table II - Distribution of offences committed by patients in the present study compared with Dr Wong's study⁽¹⁾

Type of Offences	This study		Dr Wong's study	
	No. of Patients	%	No. of Patients	%
Voluntarily causing hurt	18	20.9	24	39.7
Murder	2	2.3	14	19.1
Theft, housebreaking, robbery	20	23.3	10	13.8
Vandalism	14	16.3	3	4.1
Offensive weapon	10	11.6	3	4.1
Molest	11	12.8	9	12.3
Arson	1	1.2	-	-
Illegal hawking	1	1.2	-	-
Endangering life	3	3.5	-	-
Drug offences	2	2.3	-	-
Others	4	4.6	5	6.9

Table III - Type of offence by length of stay

Offence	Length of Stay (years)		
	0-1	1-5	>6
Causing hurt	6	17	6
Murder	0	0	2
Theft	7	9	4
Carrying weapons	1	9	0
Vandalism	5	7	1

$\chi^2=21.29, p<0.05$

Table IV - Diagnoses of patients

Diagnosis	No. of Patients	%
Schizophrenia	69	80.2
Mental retardation	7	8.1
Mental retardation with psychosis	2	2.3
Acute psychosis	3	3.5
Hypomania	1	1.1
Personality disorder	2	2.3
Organic brain disorder	2	2.3

Table V - Levels of social involvement

Social Involvement	No. of Patients	%
Heavily involved	6	7.0
Average involvement	17	19.8
Mild isolation	51	59.3
Severe isolation	6	7.0
Unknown	6	7.0

The largest group of offenders had been hospitalised after committing theft, robbery and housebreaking (23%), followed by those who had caused hurt (21%). A comparison of offences committed by patients in this study and Dr Wong's study⁽¹⁾ is shown in Table II.

The majority of patients (58%) had stayed in hospital between 2-5 years. About 29% were discharged under a year. Only 2 patients had been confined for more than 16 years. (Tables III and IV)

Eighty percent of the patients had a diagnosis of schizophrenia. A quarter of the patients had never been hospitalised previously, whilst the largest proportion (38%) had had between 2-5 previous admissions. The majority of patients (70%) had no previous forensic record.

Outcome

a) *Social Outcome*

Forty-two percent of the patients were living in private accommodation, usually with their relatives. Only 7 patients (8%) were living in their own homes. Thirteen patients (15%) had been transferred from the forensic ward to the non-forensic wards. Twelve (14%) had been readmitted following a relapse of their illness. Two patients died, both by committing suicide, two were in prison for other offences and the same number had absconded from the open ward.

Of those who were neither in hospital nor at home, 3 were living with their employers and another, being a Malaysian, had been repatriated to Malaysia.

Table V indicates that the majority of patients had mild social isolation and only a quarter were fairly well involved socially.

Those with higher levels of education tended to be more heavily involved with their family and friends ($\chi^2=6.13, p<0.05$), however there was no relationship between length of hospitalisation and social outcome ($\chi^2=0.38, p>0.5$) and length of hospitalisation and occupational outcome ($\chi^2=2.40, p>0.1$). The association between number of previous hospitalisations and social outcome ($\chi^2=1.87, p>0.5$) and previous hospitalisations and occupational outcome ($\chi^2=1.80, p>0.1$) also

Table VI - Occupational Activity by Mental State

Occupational Activity	Mental State	
	Symptomatic	Asymptomatic
Full time	4	14
Part time/Occasional	12	1
Unemployed	3	4

$\chi^2=7.79, p<0.05$

Table VII - Occupational Activity by Educational Level

Occupational Activity	Education		
	Nil	Primary	Secondary and above
Full time	0	12	6
Part time/Occasional	1	8	9
Unemployed	4	1	2

$\chi^2 = 18.97, p<0.005$

did not reach levels of statistical significance.

b) Occupational Outcome

Of those who had been discharged from hospital, 41% were engaged in full-time occupation. Nine patients (21%) were engaged in part-time and 9 in occasional work. Seven patients were unemployed.

Patients who were asymptomatic tended to be in full-time occupation whereas those with symptoms were able to carry out part-time or occasional employment. (Table VI).

Those who had attained primary level education and above were more likely to be involved in occupational activities. Conversely patients who had never attended school were more likely to be unemployed (Tables VII and VIII).

c) Clinical Outcome

Of the 86 patients in our study, we were able to examine the mental state of all but 12 patients who were either lost to follow-up, had left the country, moved out of their addresses or who had died. The symptomatic and the asymptomatic were of almost equal proportions (49% and 51% respectively). There was no relationship between educational level and clinical outcome ($\chi^2=1.17, p>0.1$) or between regularity of follow-up and the subsequent mental state ($\chi^2=1.0, p>0.5$).

Neither was there an association between mental state and social involvement ($\chi^2=0.07, p>0.5$). On the other hand, clinical stability had an influence on the patients' place of abode. (Table IX).

DISCUSSION

The demographic characteristics of the patients in our study were similar to those in Wong's study⁽¹⁾.

A large proportion were young men between the ages of 20-39 years, a majority of whom had stayed in hospital for up to 5 years, with schizophrenia being the most common diagnosis. Although Chinese males were over-represented, the preponderance of members of this ethnic group reflected the ethnic distribution of the population of Singapore, and the inpatient forensic as well as the non-forensic population in this hospital^(1,3).

We noted that those who had committed murder and those who had caused hurt accounted for 19% and 40% (respec-

Table VIII - Social involvement by occupational outcome

Occupational Outcome	Social involvement	
	Average/heavy	Mild/severe
Full time	13	5
Non full time	5	19

$\chi^2=9.09, p<0.005$

Table IX - Mental State by Place of Abode

Place of Abode	Mental State	
	Symptomatic	Asymptomatic
Open Ward	10	2
Social Welfare Home	2	6
Private Home	16	19
Readmitted	4	6

$\chi^2=7.98, p<0.05$

tively) of Wong's patients, yet formed only 2% and 21% (respectively) of our discharged patients. The reason for this discrepancy could be that perpetrators of such serious crimes were less likely to be discharged early. One of our patients who had committed murder was released from hospital only after 20 years. Conversely, those who had committed what appeared to be less serious offences eg theft, vandalism were discharged earlier. Although the relationship between the length of hospitalisation and the type of offence committed was statistically significant (Table III), small numbers in some categories meant that the result should be interpreted with caution.

Patients who were asymptomatic were more likely to be in full-time regular employment. Interestingly, mental stability was not associated with a high level of social involvement although a relationship between social and occupational competency was demonstrated.

Regularity of attendance at follow-up and the length of hospitalisation prior to discharge were not associated with an improved mental state. It is well-known from the findings of Hogarty and Ulrich⁽⁴⁾, Leff and Wing⁽⁵⁾ and others, that continued oral and depot medication is effective in preventing relapse in schizophrenia. However regularity of follow-up does not necessarily imply regularity of medication intake nor imply compliance with the prescribed dosages.

As it is the hospital's policy to readmit those who relapsed and who are deemed to be at risk of causing harm to themselves or others, it is presumed that those symptomatic of their illness and living at home were not considered "dangerous" enough to require hospitalisation. There is, however, a group of symptomatic patients who were transferred from the forensic to the "open" wards. Although these patients were not well enough to be discharged from hospital, they were considered to be sufficiently stabilised to be treated in the "open wards" as voluntary patients. In some of these cases there were either no relatives or in other cases relatives were not prepared to sign a document signifying their willingness to care for these patients at home.

Those who were placed in sheltered accommodation tended to be asymptomatic. This could reflect policy decisions to admit only well-stabilised asymptomatic patients and/or that those who had relapsed were transferred back to hospital.

Contrary to the assertion that the duration of hospitalisation was negatively associated with the amount of useful employment and social adjustment⁽⁶⁾, our study did not reach the same conclusions. The reasons could be that despite long periods of hospitalisation, patients had no difficulties finding jobs and were not lacking in social support. Furthermore, those who were being employed were clinically more stable and hence able to cope with the demands of full-time occupation. On the other hand various authors including Strauss and Carpenter⁽⁶⁾ have argued that the best predictor of social and occupational outcome was premorbid social and occupational functioning.

Our findings that a higher educational attainment was associated with good social and occupational outcomes were in agreement with those of Tsoi, Kok and Chew⁽⁷⁾. One could postulate that patients without much education tended to be employed as unskilled workers, probably on an ad hoc basis, thus explaining why in these patients there were relatively longer periods of unemployment. Conversely, the better educated could have found themselves regular work by virtue of their educational qualifications. Higher educational levels were however, not related to a better clinical outcome^(8,9).

CONCLUSION

Our sample does contain a heterogeneous mix of patients of different diagnoses, discharged over varying periods of time. We are aware that the outcome of patients discharged over a longer period may be different from those more recently discharged and that the prognosis of different diagnostic groups may vary. Notwithstanding some of our observations are concurrent with the findings of other studies we have quoted.

Factors associated with the outcome are as follows:-

- (a) a higher educational level is associated with better social and occupational (but not better clinical) functioning.
- (b) occupational outcome was related to the mental state.
- (c) better clinical functioning was not associated with a better social outcome.
- (d) length of hospitalisation probably reflected severity of the crime.

(e) length of hospitalisation and the number of previous admissions appeared to have little or no bearing on clinical, social or occupational outcomes.

(f) mental state determined patients' place of abode.

Although we could not demonstrate factors which had a bearing on the mental state, the available researches^(8,10) indicate that such variables as life events, expressed emotion in the family and premorbid personality could have influenced the clinical outcome. However, enquiry into these factors was beyond the methodological scope of the present study.

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