

A STUDY OF PSYCHIATRIC INPATIENT SUICIDES IN SINGAPORE

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SYNOPSIS

The demographic characteristics and circumstances surrounding the suicide of 12 psychiatric inpatients between 1985-86 were examined. The rate of inpatient suicide was 0.25 per 100,000 population. They were mainly from the 30-39 age group, Chinese, single, unemployed, rejected by family and had previous suicidal attempts.

Nine suffered from Schizophrenia and all were receiving medication. Ten had seen a doctor a week prior to their death. Those who died within the hospital premises hung themselves when supervision was diverted. The rest, jumped to their death.

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INTRODUCTION

Some psychiatric patients are admitted to hospital to prevent them from harming themselves. In a recent study, 10% (N=95) of new admissions into Woodbridge Hospital presented with suicidal behaviour(1). Majority of suicidal patients will respond to treatment and be discharged. Despite all precautions, some may still attempt to end their lives while receiving treatment in hospital. A few of the latter may succeed.

As early as 1966, studies on inpatient suicides have been carried out in the United States, United Kingdom and Scandinavia. Crammer(2) defined the inpatient as someone for whom the hospital staff have accepted responsibility for his care. This responsibility continues even when the patient is allowed out on leave or goes missing, until he or she is finally discharged. Inpatient suicides thus include those who die elsewhere other than in hospital premises e.g. at home on leave, or within 24 hours of abscondment from hospital. No study to date has specifically examined psychiatric inpatient suicides in Singapore.

Woodbridge Hospital, with 50 wards and a total of 2,300 inpatient beds, is the biggest psychiatric hospital in Singapore. The hospital is staffed by psychiatrists, trained psychiatric nurses, assistant nurses and hospital attendants. Patients are admitted after examination by the duty medical officer into one of the 12 acute wards. Cases under court orders are admitted into one of the two remand wards in the hospital. All wards, with the exception of the psychogeriatric and chronic long stay wards, are locked. The number of staff on night duty is generally less than in the day.

METHODOLOGY

This paper, as part of a wider study of suicide and

TABLE 1
DEMOGRAPHIC CHARACTERISTICS
OF SAMPLE

| Total Suicides (N=12) | | | % |
|-----------------------|---------------------|----|----|
| Sex | Male | 9 | 75 |
| | Female | 3 | 25 |
| Age (years) | 20 - 29 | 4 | 34 |
| | 30 - 39 | 6 | 50 |
| | 40 - 49 | 1 | 8 |
| | =>50 | 1 | 8 |
| Race | Chinese | 10 | 84 |
| | Malay | 1 | 8 |
| | Indian | 1 | 8 |
| Civil Status | Single | 10 | 84 |
| | Married | 1 | 8 |
| | Divorced | 1 | 8 |
| Employment: | | | |
| | Unemployed | 10 | 84 |
| | Employed | 2 | 16 |
| Diagnosis: | | | |
| | Schizophrenia | 9 | 76 |
| | Affective Psychosis | 1 | 8 |
| | Epileptic Psychosis | 1 | 8 |
| | Paranoid Psychosis | 1 | 8 |

general mortality of psychiatric patients, sets out to examine the prevalence, characteristics and circumstances of suicides among inpatients in Woodbridge Hospital in the years 1985-86. The information was based on examination of inpatient case records. The nursing and incident reports were also studied for greater clarity.

RESULTS

Over the two year period, there were 12 inpatient suicides, of which only 5 occurred within the hospital premises. Of the 12, 9 were males and 3 were females giving a male: female = 3:1. Table 1 gives the

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demographic characteristics of these patients. They were over represented in the 30-39 age-group with a mean age of 32.9 years. Majority were single, Chinese and unemployed.

Schizophrenia was the most common diagnostic category.

Ten of the 12 patients had 5 or more admissions and 2 had more than 20 admissions. The mean duration of illness was 10.4 years. The chronicity of their illness was also reflected in the duration of stay in their last admission.

Four stayed more than 6 months (Table 2).

All were receiving medication at the time of death. Other than one patient who had epilepsy which contributed to his psychotic state, none had concomitant physical illness.

Eight of our patients were rejected by relatives including the 2 who had been remanded for an average of 5 years (Table 2).

The state of their illness and significant events associated with the mode and site of death is shown in Table 3. Death by hanging and jumping from a height were the 2 methods used by our patients.

Table 4 illustrates the relationship between suicidal intent (defined as suicidal ideation 3 months prior to their deaths) and past history of suicidal attempts. Only 2 patients had expressed intent. Of the 10 who did not, 5 had previous suicidal attempts.

Figure 1 shows that most patients died in the second half of the year.

Most inpatient suicidal deaths in hospital occurred

Table 2
DISTRIBUTION OF CASES BY CHARACTERISTICS OF ILLNESS AND DIAGNOSIS

| | Schizo- phrenia N=9 | Others N=3 | Total N=12 |
|-----------------------------|---------------------------|---------------|---------------|
| No. of Admissions: | | | |
| 1 - 4 | 2 | 0 | 2 |
| 5 - 9 | 1 | 2 | 3 |
| 10 or > | 6 | 1 | 7 |
| Duration of Illness: | | | |
| < 1 yr | 1 | 0 | 1 |
| 1 - 5 | 1 | 1 | 2 |
| 5 - 10 | 2 | 0 | 2 |
| 10 - 20 | 3 | 2 | 5 |
| > 20 yrs | 2 | 0 | 2 |
| Last Admission: | | | |
| < 1 mth | 1 | 1 | 2 |
| 1 - 6 | 5 | 1 | 6 |
| 6 - 12 | 1 | 0 | 1 |
| > 12 mths | 2 | 1 | 3 |
| Family Rejection: | | | |
| No | 2 | 2 | 4 |
| Yes | 7 | 1 | 8 |

Table 4
DISTRIBUTION OF CASES BY SUICIDAL INTENT AND PAST HISTORY OF SUICIDAL ATTEMPTS

| Suicidal Intent | No Attempt | > 1 Attempt | Total |
|-----------------|------------|-------------|-------|
| No | 5 | 5 | 10 |
| Yes | 0 | 2 | 2 |
| Total: | 5 | 7 | 12 |

Table 5
DISTRIBUTION OF CASES BY LAST SEEN INTERVAL

| Last Seen Interval | Total Suicides (N = 12) | % |
|--------------------|-------------------------|----|
| Same day | 1 | 8 |
| 1 - 7 days | 9 | 76 |
| 8 or more days | 2 | 16 |

in the toilet and during hours when the staff were most stretched, typically at meal time and the early hours of the morning.

Six of the 7 who died outside the hospital did so between 4 and 6 pm, only 1 case died in the early hours. 10 patients had seen a psychiatrist a week prior to their death (Table 5).

DISCUSSION

In 1985, there were 12.8 suicides per 100,000 population in Singapore. There were 12 inpatient suicides over the 2 year period, giving a mean of 6 cases per annum i.e. 0.25 per 100,000 population. This is lower than the rate of 0.66 per 100,000 reported by Langeley & Bayatti(3) in U.K. The traditional custodial approach practised locally is in stark contrast to the 'open door' policy in the West. This difference in management probably accounts for the disparity in rates.

The male and female ratio of 3:1 is higher than in other inpatient suicide studies(3,4). This male preponderance is interesting and warrants further investigation. Langeley and Bayatti(3) also found a low incidence among those younger than 20 and over 60. In our study, most of our cases were in the 30-39 age group with a mean age of 32.9 years. They are slightly older than those who committed suicide in the general population. The over representation of the Chinese, the single and the unemployed has been well documented by others(5,6,7,8).

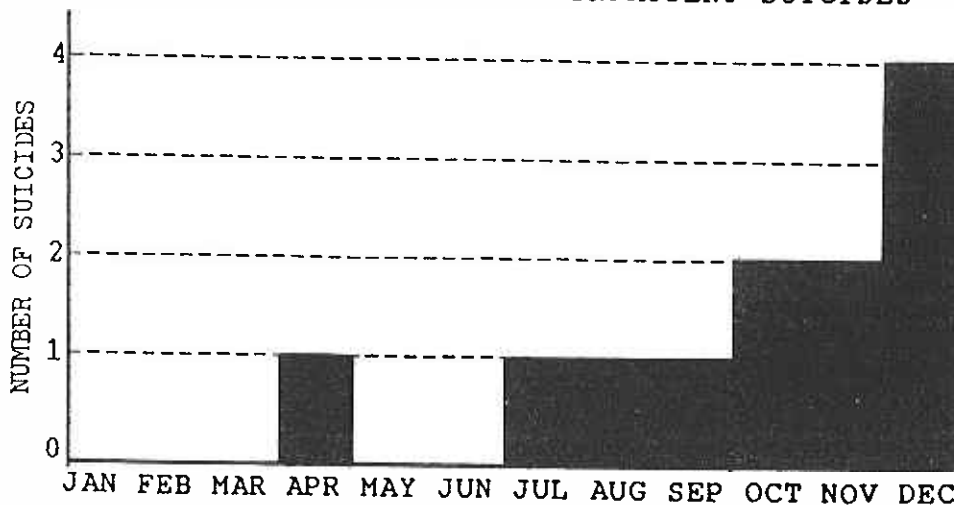
Nine of our patients suffered from Schizophrenia whereas depression was the most common diagnosis in Britain(3,4,9). The mean duration of psychiatric illness in our sample was 10.4 years with 7 having 10 or more admissions in the past. Four patients stayed more than 6 months in their last admission and eight were rejected by their family. These data suggest that

Table 3
STATE OF ILLNESS AND SIGNIFICANT EVENTS
ASSOCIATED WITH MODE AND SITE OF
PSYCHIATRIC PATIENTS

| | Diagnosis | State of Illness | Significant Events | Mode | Site |
|-----|-------------------------------------|------------------|--|---------|-------------|
| 1. | Schizophrenia /Personality Disorder | R | Family rejection Assaulted father | Hanging | Ward toilet |
| 2. | Schizophrenia | R | Family rejection Under remand | Hanging | Ward toilet |
| 3. | Epileptic Psychosis | R | Family rejection Under remand | Hanging | Ward toilet |
| 4. | Schizophrenia | R | Family rejection | Jumping | Home |
| 5. | Paranoid Psychosis | R | Educated about illness | Jumping | Home |
| 6. | Schizophrenia | R | Marital discord | Jumping | AFH |
| 7. | Affective Psychosis | R | Marital discord Told of discharge after 5 mths stay | Jumping | AFH |
| 8. | Schizophrenia | U | Grandmother died Mother ill | Hanging | Ward toilet |
| 9. | Schizophrenia | U | Hallucination Delusion of rape | Hanging | Ward |
| 10. | Schizophrenia | U | Hallucination Instructing patient to jump | Jumping | Home |
| 11. | Schizophrenia | U | Delusion | Jumping | AFH |
| 12. | Schizophrenia | U | Family rejection Withdrawn, deluded | Jumping | AFH |

NOTE: R - Illness in remission AFH - Away from hospital or home
 U - Relapse of illness

FIGURE 1: DISTRIBUTION OVER THE MONTHS OF THE YEAR
OF THE 12 PSYHCIATRIC INPATIENT SUICIDES



we are dealing with a chronic group of patients with numerous social and behavioural problems.

Traditional approach, based on clinical epidemiological consideration, has long identified such factors as depression, alcoholism, increasing age, social isolation, physical illness and significant loss as important correlates of suicide. The association between chronic physical illness such as cancer and tuberculosis with suicides(10,11) has been well documented. This interestingly was not observed in our study and was probably due to selection bias.

There is increasing evidence of other important factors which are frequently associated with suicide. Seager & Flood(12) noted that behavioral problems may hamper our recognition of the underlying suicidal risk. This is illustrated in case 1 of our study (Table 3). Chronic unresolved difficulties in patients' life outside hospital, terminal alienation and recurrent breakdown with loss of support have been suggested by Morgan and Priest(9). Plans for rehabilitation or discharge may be perceived by long stay patients as a disruption to routine. This has been postulated to play an important role (case 7). One patient (case 5), with no previous suicidal intent, committed suicide four days after being educated about his illness.

All but one of the death took place in the second half of the year, this interesting observation was also noted by Salmons(4).

Previous studies of inpatient suicides has shown that the mode of death is strongly influenced by availability(3).

Hanging was the method chosen by the 5 who did so on the ward, 2 were remanded in high security ward and the other 3 were not granted home leave. It is important to stress that their attempts occurred when supervision was diverted during meal time or the small hours of the morning. Those who died outside the hospital (N =) jumped to their death.

This was due to the accessibility of high rise flats in Singapore. Three of the 7 were granted weekend leave and the other 4 absconded from hospital.

The difficult problem of refining the identification of high risk patients is the fact that suicide is a rare phenomenon(13,14,15). Psychiatrists are thus not as good as expected at assessing the risk of imminent suicide. The suicide rate was over four times that of the expected in Pokorny's series of 44 patients(13). It is indeed

thought provoking to note that 10 patients had seen a psychiatrist a week prior to their death. Of the 10, 1 died on the same day. Identifying factors which lessen the risk of suicides has great practical implication. The relationship between suicidal intent and previous suicidal attempts were scrutinised. It appears that previous suicidal attempt is a more useful parameter than suicidal intent.

From our study, inpatient suicides can be classified into 2 distinct groups based on the mental state examination just prior to their death. The first group were in remission of their illness but experienced major life events such as family rejection, marital discord and gaining insight into their illness which ironically took away their will to live. The structure and the routine of the wards are crucial factors with regards to suicide within the hospital. A change in ward routines such as stationing an attendant near the toilet, during meal time or on night duty, may deter possible suicidal attempts. Nurses can encourage patients who experience recent life events to verbalize their disappointment. This information can then be communicated to the doctor so that steps can be taken to reduce the risk of suicide. Such goals can best be achieved through regular staff meeting at ward level.

The second group experienced psychotic symptoms at the time of death. The content of their abnormal experiences contributed directly to their self destructive behaviour. Hence it is worth exploring the content of hallucinations and delusions experienced by patients. Those which are potentially destructive should be treated aggressively before patients could act on their symptoms.

Inpatient suicide is uncommon and yet it produces great guilt in doctors and nurses when it happens. The result is often a defensive acceptance. Becoming aware, make us astute in our assessment and perhaps in the process, learn to manipulate the environment to reduce the risk of imminent suicides.

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