

SUICIDE BY PSYCHIATRIC PATIENTS IN SINGAPORE

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SYNOPSIS

The demographic characteristics and predictive factors of 59 psychiatric patients who committed suicide in 1980 were examined. They were from a younger age group between 20-39 years, divorced or widowed, had previous suicidal attempts, more serious physical illnesses and less compliant with treatment. Eighty four per cent of these cases were diagnosed as suffering from schizophrenia. The majority of suicides (65 per cent) had seen a doctor less than a month before death and 23 per cent of cases within a week.

INTRODUCTION

Suicide arises from an interaction of a wide variety of factors; personality, mental and physical illnesses, and social influences contribute in varying degrees. None of these should be perceived in isolation as determinant but each may impinge upon another in differing times and circumstances.

Retrospective surveys by Robin et al (1) and Barraclough et al (2) suggested that over 90 per cent of suicides had suffered from a diagnosable mental illness. In Singapore this was reported as 37 per cent by Chia and Tsoi (3). Such enormous variation may emanate from dissimilar methodological approaches, criteria of diagnoses, the inclination of patients to seek psychiatric help, the availability of psychiatric services besides social, cultural and environmental differences.

This study was conducted with two objectives. Firstly to ascertain the demographic profile of suicidal patients and secondly to determine predictive factors of patients who were more likely eventually to commit suicide.

MATERIAL AND METHOD

The inquiry was based upon the scrutiny of the Woodbridge Hospital and outpatient case records of psychiatric patients who committed suicide (as defined by the coroner at inquests) in the year 1980. Data were limited and meagre; information like circumstances surrounding the event were not easily available with relatives being either reticent or unwilling to discuss the incidents.

Only the patients who had been admitted to Woodbridge Hospital were included. Those seen by private psychiatrists were excluded. Out of a total of 61 suicides, there were 59 outpatients and 2 inpatients. For the purpose of evaluation we only compared the 59 outpatient cases with a random sample of psychiatric patients from the 6 outpatient clinics — the control group was matched for sex and previous admissions to Woodbridge Hospital.

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RESULTS

There were 32 female and 27 male suicides giving a female/male ratio of 1.2: 1. They were over-represented in the younger age groups between 20 to 29 years and 30 to 39 years (Table 1). The mean age of the suicide group was 35 years. In the sample, divorced and widowed patients seemed more vulnerable to suicidal behaviour as indicated in Table 2. The percentage of patients "living alone" — here defined as the sum of unmarried, divorced and widowed — in the suicide group was 73 per cent and in the control, 56 per cent.

**Table 1
DISTRIBUTION OF SEX AND AGE OF SUICIDES**

Age in Years	Male	Female	Total	Percentage of total suicide	Percentage of total control
10 — 19	—	2	2	3	5
20 — 29	15	5	20	34	24
30 — 39	8	11	19	32	21
40 — 49	1	5	6	10	26
50+	3	9	12	21	24
Total	27	32	59	100	100

$X^2 = 11.81$ df = 4
 $0.05 > P > 0.02$

**Table 2
MARITAL STATUS**

	Suicide	Control
Married	16	26
Single	35	31
Divorced/Widowed	8	2
Total	59	59

$X^2 = 6.22$ df = 2 $0.05 > P > 0.02$

**Table 3
DIAGNOSES**

	Suicide (Percentage)	Control (Percentage)
Schizophrenia	84	86
Affective Disorders	10	12
Alcoholism	4	—
Epilepsy	2	2
Total	100	100

In the diagnostic categories (Table 3), there was no significant difference between the two groups except for 4 cases of alcoholism amongst the suicides.

Eight patients with schizophrenia were noted to have depressive symptoms before suicide and 4 had recalcitrant psychotic signs of hallucination or delusion. There were 3 patients with affective disorders who experienced a relapse of severe depression but refused admission to Woodbridge Hospital.

Employment status was similar in both groups — only about 40 per cent were working and usually as part-time unskilled labourers.

Table 4 illustrates the associated physical illness; the control group had significantly less ($p > 0.02$) disabling illnesses.

**Table 4
ASSOCIATED PHYSICAL ILLNESS**

Illness	Suicide	Control
Hypertension	3	5
Peptic Ulcer	2	—
Amputated Limbs	4	—
Tuberculosis	1	—
Asthma	2	1
Thyrotoxicosis	1	—
Leprosy	—	—
Prolapsed intervertebral disc	2	—
Diabetes Mellitus	2	2
Paraparesis	1	—
Ischaemic Heart Disease	2	2
Total	21	10

Analysis of outpatient attendance of the suicide sample revealed that 53 per cent attended follow up irregularly and were less compliant with treatment. Sixty five per cent of suicides had seen a doctor less than a month before death and 23 per cent within a week. The majority of the cases (88 per cent) were living with their families and only 4 patients were living alone.

The suicidal risk was significantly increased if there was a history of attempted suicide (Table 5).

**Table 5
PREVIOUS SUICIDE ATTEMPTS**

	Suicide	Control
Nil	33	55
Once	15	2
More than once	11	2
Total	59	59

$X^2 = 13.59$ df = 2 $0.01 > P > 0.00$

Jumping from high-rise flats remained the commonest method of suicide but although psychiatric patients are usually prescribed medication for a month, drug overdose occurred in only a single case (Table 6).

Table 6
METHODS OF SUICIDE

	Total	Percentage
Jumping from flats	40	68
Hanging	8	13
Drug overdose	1	2
Domestic poison	3	5
Drowning	4	7
Self-injury	3	5
Total	59	100

DISCUSSION

The result has underscored certain salient demographic features of psychiatric patients of Woodbridge Hospital who committed suicide. In the main they were from a younger age group between 20-39 years, divorced or widowed, had more serious physical illness, previous suicide attempts and more likely to default treatment.

The vulnerability of the younger patients in Singapore has been documented by Tsoi and Chia (4). This is in contrast to the older patients in Britain where the risk is greater for those above 45 years. Other studies have also emphasised the suicidal potential of those who are single, divorced, widowed, have serious physical illness and attempted suicide (2, 5, 6).

The diagnostic categories are similar to the earlier survey by Tsoi and Chia in 1974 (4). There is a preponderance of schizophrenia (84 per cent), but in Britain the studies of Barraclough (2), Stengel (5) and Seager (7) show more affective disorders and alcoholism. Notwithstanding other factors, an explanation of the difference could be the type of referrals to Woodbridge Hospital. Depression tends to be treated by general practitioners and patients admitted are mostly suffering from schizophrenia. Suicide by schizophrenic patients could be due to depression or a response to the relentless command from auditory hallucination. It decreases with age probably because of a reduction of volition at the 'burnt-out' stage of the illness.

Social stress affecting domestic life and fragmented interpersonal relationship are clearly of great importance. Most of the patients of Woodbridge Hospital are from the lower social class where overcrowding and financial difficulties could aggravate a high expressed-emotion family. Eighty eight per cent of the suicide group were living with their families whereas it had been observed in Britain that most of the suicidal patients were living alone, socially isolated. It is unfortunate we have not been able to explore further this aspect of the problem.

What are the predictive factors of suicidal propensity of psychiatric patients in Singapore? We take cognizance of the fact that 65 per cent of suicides in the inquiry had seen a doctor within a month before death and 23 per cent over the last week.

Certain predictors will be those derived from what is known of the epidemiology of suicide in general; it is becoming increasingly evident that variables which delineate vulnerable categories in the population at large are equally powerful predictors among psychiatric patients. But the use of demographic predictors in evaluating suicidal tendency is limited. It remains the task of an individual clinician to assess an individual patient's risk on the basis of careful clinical examination. Rating scale to assess suicidal potential has been formulated by Tuckman and Youngman (8), but in the outpatient clinics with the stupendous case load this measurement instrument can be cumbersome to ad-

minister.

The mental state examination sometimes fails to elicit suicidal ideas of a patient who subsequently kills himself. This may be due to the patient's own reticence but may also be ascribed to reluctance on the doctor to probe fully through misplaced fear that such enquiries may prompt suicide to a patient who has not previously entertained such ideas.

In any depressive patient a history of attempted suicide is also a predictor of a fatal outcome (9). In a review of 17 studies, Guze and Robins (10) found that affective disorders were associated with high suicide rates — approximately 30 times that seen in the general population. Sainsbury (11) estimated that 1 in 6 patients diagnosed as manic-depressive would die from suicide. The early months following psychiatric contact seem to be a particularly vulnerable period which some authors ascribe to a lifting of psychomotor retardation at a time when mood has yet to improve, thereby increasing the risk that suicidal impulses will be put into operation.

Predictor variables can be grouped into 3 categories:

- (1) Demographic indicators like sex, age, marital status, employment, race, religion
- (2) Mental state examination
- (3) Clinical history including family history of suicide previous attempted suicide, physical illness, alcoholism and suicidal intent.

From the study we can delineate certain predictive factors — those psychiatric patients who are young; divorced or widowed; with a history of depression, attempted suicide and physical illness; and poor compliance in treatment. Sometimes such confident appraisal can be erroneous but it would be better to err on the safe side.

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