

# Profile of in-patient suicides in two hospitals in Malaysia

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## Summary

A study of completed in-patient suicides at the University Hospital Kuala Lumpur (UHKL) and Hospital Bahagia Ulu Kinta (HBUK) between 1st January 1967 to 31st December 1987 were conducted. Records of completed in-patient suicides during the period were exhaustively studied. Only 18 cases were from UHKL and 23 cases were from HBUK. It was found that the suicide patients were mainly young Chinese males from the lower socio economic group. The main reasons for suicide were interpersonal conflicts and physical illness. Alcohol was not an important factor unlike patients in the West. Suicidal intent was also important. Many of the suicides were committed during the early hours of the morning and they usually occurred at inaccessible places. The method was strongly influenced by availability. To the best knowledge of the author, this is the first study of in-patient suicides in Malaysia.

*Key words:* Suicide, In-patient Suicide.

## Introduction

Suicide of an in-patient is relatively uncommon but when it happens, it produces great guilt in doctors and nurses but if we do not allow feeling to block thought and observation, it is possible to learn from each of these deaths something about human beings which we can use in the practice of psychiatry.

The hospital ward is a simple familiar environment in contrast to the hurly-burly of city and work. There are fewer emotional stimuli per day, relationships are without past histories, and the patient is shielded from life events. What does happen is likely to be observed or known by the staff to an extent impossible in the outside world. So it is in hospital that an intensive study can be made of individuals moving towards suicidal acts, and those who have attempted such acts.

There has been no previous Malaysian study. The written information needed can come from case papers, ward report and nursing notes. These can be supplemented by interviews with staff, relatives, etc. The body of data thus obtained may indicate straightaway some of the factors which are quantitatively important in in-patient suicides, and an analysis of correlation may uncover others.

This retrospective study is done to find out some of the answers. The main objective is to compare the in-patient suicides of two hospitals i.e. a University Hospital which mainly caters to acute in-patients and a long-stay mental institution that caters to the more chronic in-patients.

## Methodology

The patients were from two hospitals, i.e. the University Hospital Kuala Lumpur (UHKL) and the Mental Hospital, Ulu Kinta, Perak or Hospital Bahagia (HBUK). The UHKL is a short stay, 14 storey

teaching; hospital with approximately 1000 beds serving the city of Kuala Lumpur and its satellite town Petaling Jaya. It also partly serves as a national referral centre for specialised services including psychiatry. The HBUK is a long stay mental hospital comprising multiple single storey buildings situated about 15 km northeast of Ipoh. It has a patient population of about 2000.

All cases who committed suicide while in both hospitals between the period of 1st January 1967 to 31st December 1987 were included in the study. In UHKL the cases were identified from the register at the hospital's medical records office. In HBUK it was easier as all cases were sent for postmortem and the cases could be identified through the postmortem register. After obtaining the necessary particulars, a search for their files were made and the files were meticulously scrutinized for information pertaining to the suicide acts. A questionnaire developed by the author was used to aid in information retrieving. The nursing notes were scrutinized to establish detailed information about the suicide acts as they were usually written in more detail. For recent cases or if the staff were still present, they were also interviewed as part of the process of information retrieval.

Demographic data including, age, sex, race, marital status, employment status were easily obtained from the admission forms of the patients in both hospitals. Other data viz. living arrangements, reasons for suicide, methods used, knowledge of intent (patients placed on suicidal caution), previous attempts and various other aspects were taken from the doctor's notes or nursing notes. If these information were not obtained, the case was deleted from the study.

The diagnosis of all patients in the study were based on the ICD-9 classification retrospectively. Criteria for time of suicide are as in Table III. The results were then subjected to statistical analysis using the "Z" test and the chi-square test.

## Results

There were 20 cases identified in UHKL but only 18 case files were included since information from the other 2 were incomplete. In HBUK, 25 cases were identified but 2 cases had to be discarded for similar reasons. The results are summarised in Tables I, II and III.

## Discussion

The findings in this study revealed major similarities with the findings of a previous study in Singapore<sup>1</sup> and other studies done in the West.

**Table I**  
No and % of suicide by age, sex and race in UHKL 1967 – 1987

Age (yrs)	Chinese		Indians		Malays		Subtotal		Total N (%)
	F	M	F	M	F	M	F	M	
16 – 25	3	2	–	–	–	–	3	2	5 ( 29)
26 – 35	4	5	–	–	–	1	4	6	10 ( 53)
36 – 45	–	–	–	–	–	–	–	–	– ( –)
> – 45	2	–	1	–	–	–	3	–	3 ( 18)
<b>Subtotal</b>	<b>9</b>	<b>7</b>	<b>1</b>	<b>–</b>	<b>–</b>	<b>1</b>	<b>10</b>	<b>8</b>	<b>18 (100)</b>

*Oldest was 65 years*

*Mean age for male* = 30.12

*Mean age for female* = 36.40

**Table II**  
No and % of suicide by age, sex and race in HBUK 1967 - 1987

Age (yrs)	Chinese		Indians		Malays		Subtotal		Total N (%)
	F	M	F	M	F	M	F	M	
16 - 25	1	1	-	1	-	1	1	3	4 ( 18)
26 - 35	2	3	-	1	-	3	2	7	9 ( 38)
36 - 45	1	4	-	2	-	1	1	7	8 ( 34)
> - 45	0	1	-	-	-	1	-	2	2 ( 10)
<b>Subtotal</b>	<b>4</b>	<b>9</b>	<b>-</b>	<b>4</b>	<b>-</b>	<b>6</b>	<b>4</b>	<b>19</b>	<b>23 (100)</b>

Oldest was 59 years

Mean age for male = 35.42

Mean age for female = 29

**Table III**  
Summary of other results

	UHKL				HBUK			
	f (n=10)	m (n=8)	total (n=18)*	(%)	f (n=4)	m (n=19)	total (n=23)	(%)
<b>Marital Status</b>								
Married	5	1	6	(33)	1	10	11	(48)
Single	3	5	8	(45)	3	9	12	(52)
Divorced/Separated	-	2	2	(11)	-	-	-	(-)
Widowed	2	-	2	(11)	-	-	-	(-)
<b>Employment Status</b>								
Employed			8	(44)			10	(44)
Unemployed			3*	(17)			10*	(44) * (p=0.0336)
Housewife			6	(33)			1	( 4)
Student			1	( 6)			2	( 8)
<b>Probable Primary Reason</b>								
Quareling	6	-	6*	(33)	-	-	1*	( 4) (p<0.05)
Physical Illness	3	1	4*	(22.5)	-	1	1*	( 4) (p<0.05)
Psychiatric Disorder	-	3	3	(17)	-	1	1	( 4)
Unknown	1	4	5*	(27.5)	4	17	21*	(92) (p<0.05)
<b>Living Arrangement</b>								
Alone			3	(17)			1	( 4)
With Unrelated Family			1	( 6)			1	( 4)
With Family			14	(77)			21	(92)
<b>Method of Suicide</b>								
Jumping	7	6	13	(72)	-	-	-	-
Hanging	3	2	5*	(28)	3	1	21*	(92) (p<0.05)
Others					1	1	2	( 8)

\*Significant

<b>Knowledge of Intent (by doctors)</b>								
Yes	6	6	12	(67)	1	5	6**	(24)
No	4	2	6	(33)	3	14	17**	(76)
<b>Previous Suicide Attempts</b>								
Yes	6	2	8	(45)	1	5	6	(24)
No	4	6	10	(55)	3	14	17	(76)
<b>Associated Conditions</b>								
Drugs	-	2	2	(22)	-	1	1	( 4)
alcohol	-	-	-	(-)	-	-	-	(-)
Fits	-	1	1	( 6)	-	-	-	(-)
Others	-	-	-	(-)	-	-	-	(-)
None	10	5	15	(82)	4	18	22	(96)
<b>Time of Suicides</b>								
Office hours	2	2	4	(22)	1	6	7	(32)
Change of shift	3	3	6*	(33)	-	2	2*	( 8) (p=0.024)
Past 9.15 pm	4	3	7	(39)	2	8	10	(44)
Visiting hours	1	-	1	( 6)	1	3	4	(16)
<b>Location of Suicides</b>								
In ward (accessible)	2	3	5	(18)	2	2	4	(16)
In ward (non-accessible)	3	3	6*	(33)	2	16	18*	(80) (p=0.018)
Outside ward (accessible)	-	-	-	(-)	-	1	1	( 4)
Outside ward (non-accessible)	5	2	7	(39)	-	-	-	(-)
<b>Person Initiating Rescue</b>								
Staff nurse/M.A.	5	1	6	(33)	2	11	13	(56)
Doctor	1	5	6*	(33)	1	-	1*	( 4) (p=0.012)
Unskilled	-	-	-	(-)	1	8	9	(40)
Others	1	2	3	(17)	-	-	-	(-)
No information	3	-	3	(17)	-	-	-	(-)
<b>Primary Diagnosis</b>								
Schizophrenia	5	4	9	(50)	3	12	15	(68)
Depression	2	-	2	(12)	-	3	3	(12)
Others	-	1	1	( 6)	1	3	4	(-)
Physical + depression	3	3	6	(32)	-	1	1	( 4)

\*(Significant)

\*\*\* Office hours = 8.00 am - 4.30 pm  
(outside changing of shift)

Change of shift = 6.30 am - 7.15 pm  
1.30 pm - 2.15 pm  
8.30 pm - 9.15 pm

Visiting = 4.30 pm - 7.00 pm

(i) **Demography of Suicides**

The finding that the majority of the suicides are Chinese males concur with the findings of the Singapore study<sup>1</sup>. However, the age group seemed to be different as they found that 68% of the cases were above the age of 44 while in UHKL 53% are in the 26–35 years age group. In fact the mean age of 30.12 years of UHKL male suicides was younger than that of females. But for HBUK the mean age of males is higher than females. The reasons for these differences are difficult to postulate in this study as the numbers involved were small. Perhaps a different population group was being studied as many studies indicating higher age in males were not of inpatient suicides.<sup>2</sup>

In this study, most of the patients from both hospitals were single. A small percentage are separated while a large percentage are married. This is similar to an American study done in a Los Angeles hospital<sup>3</sup>. In the Singapore study 85% of the patient were unemployed but in this study only 17% of the UHKL and 44% of the HBUK suicides were unemployed. There was a significant difference between the patients of both hospitals with regards to this. Most of those from HBUK were unemployed probably because of their chronic illness. With regards to demographic data, this seemed to be the only significant difference between the hospitals.

(ii) **The Suicide Act**

Chia<sup>1</sup> mentioned that the reasons given by the patients were mainly pain from physical illness and hopelessness but he did not deal into this aspect deeper. Morgan et al stated that chronic unresolved problems was one important factor in assessment of suicide risks in psychiatric in-patients<sup>4</sup>. In this study, a major interpersonal problem (quarreling with someone) accounted for 33% of the suicides in UHKL. However no further details could be elicited in most of the cases as the information given was brief. However there is a significant difference with HBUK patients as only one patient had "quarreling" as a precipitating factor. There was also significantly more physical illness among the UHKL patients and this is expected as these patients were not from the psychiatric ward but from the medical and surgical wards who later developed depression.

Although there is considerable literature on in-patient suicides in psychiatric hospitals, few authors considered the characteristics of patients and methods used. Farberow et al<sup>5</sup> in their survey of the Veterans' Administration hospitals in USA found that in neuropsychiatric units the most common method of suicide was by hanging with jumping second. They also found that jumping was more likely to be used by older patients and that over 90% of in-patients who committed suicide were males. By contrast, a study in New York and another by Lester et al found that most suicides by jumping were by women<sup>6,7</sup> Chia found a preponderance of jumping (66%) in Singapore in-patients<sup>1</sup>. In this study, jumping is popular in UHKL (72%) and hanging (92%) is significantly predominant in HBUK. So availability of the method is important and we should be sensitive to this fact in order to prevent patients from getting the "available method".

Several reports have also claimed that a large proportion of psychiatric patients (30% – 75%) who committed suicide had admitted to suicidal thoughts before they killed themselves<sup>1</sup>. In our study, 67% of the UHKL patients expressed suicidal intent while only 24% of HBUK patients expressed the wish to die. This low rate of intent in HBUK is alarming but with increase in staff to patient ratio, this problem would probably change. The high rate of undiagnosed intent in UHKL (33%) was also alarming but these were actually non-psychiatric patients with physical illness treated in non-psychiatric wards. Perhaps knowledge on how to look for suicidal patients should also be expected from non-psychiatric staff. In this study, it is seen that in both hospitals, none of the suicides were alcohol related, this is in contrast to most western studies<sup>2,5</sup>.

Salmons found that the least number of deaths occur between 6.00 pm to midnight<sup>8</sup>. This is explained by the diurnal variation in mood which means that the patient is least depressed during the period in the evening. This would also mean that the most number of suicides are thought to be in the early hours of the morning although the percentage of patients diagnosed as depression was only 12% in both hospitals. Perhaps the low level of vigilant staff during this time was also an important factor. The significantly higher number of patients in UHKL who committed suicide during the changing of shift is also explained in this way.

All the papers about hospital suicides reviewed above did not mention the actual location of the suicide except that it was found that most of the suicides were committed within the ward in the relatively inaccessible areas, mainly the toilets.

There were also no reports of persons who initiated rescue or who found the patient. In this study, in UHKL more than 60% of the cases were first noticed or rescue initiated by the medical staff themselves (doctors and nurses) and there were no delays in the rescue operations. With regards to diagnosis there was no significant difference between the two hospitals.

The information obtained in this study may be divided into two groups. Firstly, there is the factual data about the patients who committed suicide. In this respect the suicide patients do not differ significantly between the two hospitals with regards to demographic data. Secondly, there is information concerning the illness itself. Examination, especially of the UHKL patients shows the suicide patients to be slightly more vulnerable and were associated with increased suicidal intent expressed verbally and relatively higher proportion of emotional difficulties or associated physical illness.

The emergent picture shows that the patients who subsequently committed suicide do not differ significantly between the two hospitals.

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