

Attempted suicide in a Northern town of Sri Lanka.

¹ T. Ganesvaran M.B.B.S. (Ceylon) M.R.C. Psych (Eng.)
DPM, R.C.P. (Lond.) R.C.S. (Eng.)

² R. Rajarajeswaran M.B.B.S. (Ceylon)

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Summary

Epidemiological analysis of 306 patients admitted for attempted suicide to a general hospital in Northern Sri Lanka is presented. The majority are from the 15-34 age group and from social class 4 and 5. The commonest method was self-poisoning by agrochemicals and insecticides of the organophosphate type. More patients from non-farming families used the above poison than the farmers themselves, or their family members. Premeditation was also higher in the non-farming families. Intention score on the Pierce's scale was available for 289 patients. An attempt was made to review all patients at the end of three years.

Introduction :

Previous studies on attempted suicide in Sri Lanka have been carried out in the southern districts of the country when conditions were

comparatively peaceful^{1, 2}. Apart from a study of self-poisoning³ in the General Hospital, Jaffna, there has not been any detail study of attempted suicide in the northern districts of the island. The present study relates to 328 patients who were admitted for "attempted suicide" to the General hospital, Jaffna, Sri Lanka during the year 1984. Twenty-two of these patients succumbed to their injuries and they are reported elsewhere⁴. The following is an epidemiological analysis of the 306 survivors.

Method :

All patients were seen by the house-officers in the medical or surgical wards on admission. They were also seen by the house officer in psychiatry within twenty-four hours of admission; those who survived a longer period were seen by the author (T. G.). Socio-demographic data, previous history of physical or mental illness and wherever possible, either a partial or a full intention score was obtained. The intention scale used was that of Pierce⁵. Items of self-report were voluntary information from patients or their responses to routine questions on admission. The patients or their fa-

¹ Professor of psychiatry, Faculty of Medicine, University of Jaffna (Presently Visiting Associate professor, Department of Psychological medicine, Faculty of medicine, University of Malaya, Malaysia)

² House officer in Psychiatry, General Hospital, Jaffna.

Table 1 : Patients seen in General Hospital, Jaffna in 1984 after attempted suicide - by Age, Sex and Marital Status

Age		0-14	15-19	20-24	25-34	35-44	45-54	55-59	60-64	65-69	70 or over	Total
Males	Never married	10	36	33	12	0	0	0	0	0	0	91
	Married	0	1	17	20	8	10	2	1	0	3	62
	Widowed, divorced or separated	0	0	0	0	0	0	0	0	0	0	—
	Total	10	37	50	32	8	10	2	1	0	3	153
Females	Never married	4	44	32	4	0	0	0	0	0	0	84
	Married	0	5	13	21	11	3	1	0	0	0	54
	Widowed, divorced or separated	0	1	3	4	4	11	0	1	0	1	15
	Total	4	50	48	29	15	4	1	1	0	1	153
Total		14	87	98	61	23	14	3	2	0	4	306

families were contacted by letter 3 years after admission.

Results :

Age, Sex, and Marital Status - (Table 1)

Males and females are equally represented with a predominance of the younger age group. One-hundred and nineteen of the males and 127 of the females were in the 15-34 age group. There were 91 males and 84 females in the never married group. Amongst the widowed, separated or divorced category, 15 females attempted suicide; while none of the males in this category showed this behaviour.

Social Class (Table 2)

Patients from social class III, IV and V formed 83% of the total. Social class V, the category of unskilled workers, formed 46.7% of the total attempted suicides.

Methods of Attempted Suicide (Table 3)

Dangerous agrochemicals and insecticides of the organophosphate groups were used predominantly by males, while the females used medically prescribed drugs and other chemical agents and plant poisons. The commonest chemical agent was kerosene oil. Seeds of yellow oleander included under other non-drugs was used by 18 males and 35 females. Only 5 patients tried hanging, burning and drowning themselves.

Use of Organophosphate Compounds (Table 4)

Organophosphate forms a major group of agrochemicals used in Sri Lanka. Eighty-nine patients from

non-farming families used organophosphate in their attempts compared to 29 from the farming families. Majority of the farmers who used organophosphate agrochemicals in their attempts had little or no premeditation. Majority of patients from non-farming families had higher premeditation scores. Malathion is an organophosphate though mainly used by farmers is also used as an insecticide by non-farming families.

Diagnosis (Table 5)

Of the many diagnoses possible in any one patient, the chief or the most significant one is listed in the table. Majority of patients suffered from depression, grief reaction, chronic alcoholism or marital, social and economic stress reaction. In the males, the diagnosis of depression was less than the females, but this was compensated by a higher incidence of chronic alcoholism. Alcoholism was uncommon in females.

Intention (Table 6)

Of the 289 patients on whom the intention scores were obtained, 120 had a score of 10 or more. Sex difference is not remarkable.

Review of patients after three Years (Table 7)

The families of 306 patients were contacted by letter. Forty-six families responded by replying the letter or by attending the clinic in person. Of this 46, one patient suffering from schizophrenia, was shot dead, while working in his paddy field, by the Sri Lankan army. Another had committed suicide during this period. Of

Table 2: Patients seen in General Hospital, Jaffna in 1984 after attempted suicide by social class

Social Class	Males	Females	Total
I — Professional and business etc.	3	5	8 (02.6%)
II — Nurses, teachers, clerks	8	14	22 (07.2%)
III — Sales and service	16	24	40 (13.0%)
IV — Skilled workers	52	23	75 (24.6%)
V — Unskilled workers	68	74	142 (46.7%)
Not available	6	13	19 (06.0%)
Total	153	153	306 (100.0%)

Table 3: Methods of attempted suicide seen in General Hospital Jaffna in the year 1984

Methods	Males	Females	Total
Poisoning :			
Agrochemicals and insecticides	90	44	134
Drugs	27	40	67
Other non-drugs	30	61	91
Unknown	2	3	5
Others :			
Hanging	0	2	2
Burns	0	2	2
Drowning	0	1	1
Suicide on railways	0	0	0
Cutting	4	0	4
Total	153	153	306

Table 4: Use of Organophosphate compounds

Occupation	Organo-phosphate compounds	Impulsive-no premeditation	Considered act for less than one hour	Considered act for less than one day	Considered act for more than one day	Total
Farmers	Agro-chemicals	15	2	5	3	25
	Non-agro-chemicals	3	0	1	0	4
Non-Farmers	Agro-chemicals	19	7	14	17	57
	Non agro-chemicals	8	3	11	10	32
Total		45	12	31	30	118

Table 5: Diagnosis of 306 Patients who attempted suicide

Diagnosis	Male	Female
Depressions and grief reaction	25	58
Chronic alcoholism	43	2
Schizophrenia	2	1
Other mental disorders	3	5
Marital, social and economic stress reactions	57	55
Physical illness	7	13
Impulsive acts	8	16
No diagnosis made	8	3
Total	153	153

Table 6: Intention Scores of 289 patients who attempted suicide

Sex of patients admitted for attempted suicide	Pierce's Intention Scores					Total number of patients
	0-4	5-9	10-14	15-19	20-25	
Male	35	54	47	10	0	146
Female	32	48	50	13	0	143
Total	67	102	97	23	0	289

Table 7: Intention score of patients reviewed after 3 years

Sex	Intention Score					Total
	0-4	5-9	10-14	15-19	20-25	
Male	10	3	7	1	0	21
Female	4	6	10	2	0	22

the 46 patients reviewed, intention score was available for 43 patients. The 2 deaths could not have been predicted on the score obtained. Table 7 shows the intention scores of 43 patients who were reviewed at the end of 3 years. The distribution of the scores in males and females are similar. Twenty patients had obtained a score of 10 or above.

Discussion :

Majority of attempted suicides come from the 15-34 age group. Most of them were never married. Absence of this behaviour in males who were widowed, separated or divorced and the appearance of the behaviour in the females who were divorced, widowed or separated indicate that marital failure is a greater stress on the life of the females in Jaffna. As reported in other studies⁶, attempted suicide was over-represented in social class IV and V. Use of agrochemicals still remain the chief method. The analysis of the use of organophosphate compounds, which form a large proportion of the agrochemicals, shows such use is mainly resorted to by non-farming families. It is interesting to note that when farmers used these compounds, the act was impulsive or the premedita-

tion was low. When the non-farming families used this poison for suicidal purposes, premeditation was high. This suggests that, a greater control over the sale and distribution of agrochemicals, particularly to non-farmers, may have a beneficial effect on the trend of the rate of suicide in Sri Lanka. Majority of patients suffered from depression, grief reaction and chronic alcoholism. Amongst the males, there were 25 who suffered from depression and grief reaction compared to 58 in the females. However there were 43 alcoholics, compared to 2, among the females. When depression and grief reactions were added to the diagnosis of chronic alcoholism, there was no difference between the males and females of the population. It is probable that many chronic alcoholics may in fact be suffering from depression. One hundred and twenty patients had an intention score of more than 10. They were equally distributed in the two sexes. When patients were contacted by letter after 3 years, only 46 families responded to the questionnaire. The two deaths amongst them could not have been predicted on the basis of their intention score. As expected, the response was low because of the ethnic violence and disturbance of

civil life due to Sri Lankan and Indian army operations in this part of the country. Many left their home, as refugees to other parts of the world. The number is too small to make any valid inferences.

Conclusion :

Of the 306 patients seen for attempted suicide, 134 used agrochemicals and insecticides for self-poisoning. Organophosphates formed a major proportion of the above group of poisons. Patients who used them were more often males and most of them came from non-farming families and had a long period of premeditation before the act. Significant proportion had an intention score of more than 10. This has to be considered in relation to the high suicide rate already reported for Jaffna⁷. Stricter control of sale and distribution of agrochemicals of the organophosphate type is expected to alter this trend in suicide.

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