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PSYCHIATRIC DIAGNOSIS OF SELF POISONING CASES: A GENERAL HOSPITAL STUDY

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ABSTRACT

Attempted suicide due to overdose with toxic chemicals and medication is on the rise. Among the survivors of attempted suicide, the most frequent psychiatric diagnosis when analysed post hoc, seems to be reactive depression and personality disorders. We conducted a retrospective study of patients who attempted suicide by self poisoning in a teaching general hospital. The most frequent I.C.D. 10 psychiatric diagnosis among them was adjustment disorder. Insecticides containing organophosphorous compounds were the most frequent self administered toxic compound. The reported stressful factors were also studied.

Key words : Self poisoning, adjustment disorder, attempted suicide

Attempted suicides are more common compared to completed suicides (Venkoba Rao, 1965). As regards to methods adopted, self poisoning seems to be the most common, followed by hanging and drowning (Government of India, 1988). Clinically it is evident that patients who attempt suicide form a heterogeneous population (Beck & Greenberg, 1971). Patients who attempt suicide seem to suffer from a wide variety of psychiatric illnesses including Personality Disorders (Kreitman, 1976, Wold & Tabanchick, 1974, Shukla et al., 1990). Among patients who deliberately harm themselves, many have affective symptoms falling short of a full psychiatric syndrome (Kessel, 1965) or show no significant psychiatric symptoms to qualify for a diagnosis (Urwin & Gibbons, 1979). Also, a separate deliberate self harm syndrome had been proposed (Kahan & Pattison, 1984).

This study was aimed to know the distribution of psychiatric diagnosis which was made immediately following recovery from the self poisoining suicidal attempt.

MATERIAL AND METHOD

This was a retrospective study conducted at St.John's Medical College Hospital, Bangalore, India.

All self poisoning cases are first registered at the emergency department where a separate record is routinely maintained. The initial screening of self poisoning cases for the study was done by going through this register and all the cases during the period from 1 January 1994 to 31 December 1994 with a diagnosis of self poisoning were studied.

After admission, patients were treated in the ward or in the intensive care unit by the physicians. These patients were referred to the psychiatrists for evaluation after the physical condition stabilised. The hospital encourages mandatory psychiatric evaluation of all the attempted suicide cases before discharge.

The psychiatric assessment was done by one of the six consultants from the department of psychiatry. All consultants are familiar with I.C.D. 10 diagnostic guidelines (WHO, 1992), and they use it routinely in their clinical practice. A detailed clinical interview of each patient was conducted after the toxic effects of the substance ingested had subsided. The information regarding premorbid personality and stress was cross checked with a close relative of the patient or a reliable informant. The assessment included medical seriousness of the attempt, impulsivity, evidence of premeditation, stated intent, inferred intent, precipitant stress and patient's reaction to the attempt and recovery. A psychiatric diagnosis based on I.C.D. 10 was made independently by the consultants once the clinical picture was clear and information obtained was sufficient.

A proforma with 43 variables was designed for the study purpose to abstract data from consultant's notes, inpatient chart, outpatient chart and psychiatry case records. Chi-square test was employed for statistical analysis.

RESULTS

During the one year study period 308 patients (men 51.3% and women 48.7%) were registered in the emergency department for treatment of self poisoning.This constituted 7.7% of all registered cases at the Emergency department. There was a marginal decrease in the number of self poisoning cases, when compared to the hospital figures of previous five years (Table1). Of this, only 129 cases were not admitted. Their psychiatric status was largely unknown to us as some of them were referred to another hospital in the city due to non-availability of critical care facilities at that point of time. Of the admitted 179 cases, only 119 (66.5%) cases were referred for psychiatric assessment. Among those not referred for psychiatric evaluation,13 (7.3%) cases had succumbed to severe poisoning and the others got discharged on recovery. The following are the hospital figures showing average monthly attendence of patients during the study period: hospital out-patients 19,292; Hospital in-patients 2,237; Psychiatry out-patients 832; Psychiatry in-patients 93 and emergency department 1518.

TABLE 1
ST. JOHN'S HOSPITAL DATA - SUICIDE ATTEMPT PATIENTS

Year	Pesticides (N)	Hanging (N)	Drowning (N)
1989	249	-	-
1990	432	7	5
1991	512	8	2
1992	376	4	2
1993	403	2	-

TABLE 2
SOCIODEMOGRAPHIC VARIABLES

	Referred to psychiatry (N=119) %	Not Referred to psychiatry (N=60) %	Total (N=179) %
Age in yrs (mean±S.D)	25.3±8.1	25.4±9.4	25.3±8.6
Females	48.7	43.3	46.9
Males	51.3	56.7	53.1
Married	51.3	55.0	52.5
Unmarried	43.7	40.0	42.5
Separated	0.8	-	0.5
No information on marital status	4.2	5.0	4.5
Suburbs	37.8	36.7	37.4
Metropolis	62.2	61.7	62.0

All the variables were not significant

There were no statistically significant differences regarding sociodemographic factors among those referred (66.5%) and those not referred (33.5%) for psychiatric assessment (Table 2).

Among the distribution of the chemical or drug agents used by 308 patients for poisoning the commonest agent was

TABLE 3
AGENTS USED FOR SELF POISONING

Substance	I.C.D. 10	Total (N =306) %
Pesticides	X68	61.7
Barbiturates antidepressants	X61	21.1
Corrosives	X69	6.2
Various drugs*	X64	4.5
Others**	X60,62, X65,66	6.5

*prescription drugs, ** kerosene, alcohol, etc.

TABLE 4
I.C.D. 10 PSYCHIATRIC DIAGNOSIS

ICD 10 Categories group		ICD Code	(N=92) %
F01-F09	Organic mental disorder	(F07)	1.1
F10-F19	Substance abuse	(F10)	5.4
F20-F29	Schizophrenia etc.		4.3
	-Paranoid schizophrenia	(F20)	2.2
	-Acute psychotic disorder	(F23)	1.1
	-Schizoaffective disorder	(F25)	1.0
F30-F39	Mood disorders		27.2
	-Bipolar affective disorder	(F31)	4.3
	-Depressive episode	(F32)	20.7
	-Persistant mood disorder	(F34)	2.2
F40-F49	Neurotic stress related		35.9
	-Other anxiety disorders	(F41)	2.2
	-Adjustment disorders	(F43)	33.7
F60-F69	Personality disorders	(F60)	5.4
F70-F79	Mental retardation	(F70)	2.2
Z00-Z99	Parasuicide	(Z91)	18.5
	Imcomplete psychiatric assessment & records		N=27

organophosphorous pesticide (61.7%) followed by antiepileptic and psychotropic drugs (19.8%) (Table 3).

TABLE 5
DISTRIBUTION OF STRESSORS

Catogories	Problems related to	(N=119) %
Z-55	Education	10.1
Z-56	Employment/Unemployment	0.8
Z-59	Housing/Economic circumastances	1.7
Z-61	Physical abuse	0.8
Z-63	Primary support group/family	26.1
Z-65	Other psychosocial factors	0.8
Z-86	Disease of circulatory system	0.8
Z-87	Disease of skin	0.8
	No clearcut identifiable stressors	58.1

TABLE 6
DISTRIBUTION OF RISK FACTORS

History	(N=119) %
Past h/o suicidal attempt	9.2
Past h/o substance abuse	10.0
Past h/o psychiatric illness	7.6
Personal h/o epilepsy	7.6
Family h/o epilepsy	1.7
Above risk factors absent	63.9

Among the 119 cases referred, psychiatric assessment of 92 (77.3%) patients were complete, while in 27 (22.7%) cases, psychiatric diagnosis was not arrived at because of poor information & incomplete case records. The commonest I.C.D.10 psychiatric diagnosis was Adjustment Disorder in 31(33.7%) cases and Depressive episode in 12 (20.7%) cases. In 17 (18.4%) cases no identifiable psychiatric syndromes were evident and hence received the code under 'Z' category of I.C.D.10. The distribution of the various psychiatric diagnosis made, is shown in table 4.

The psychosocial stressors were evaluated for all the 119 patients who were referred to the department of psychiatry. The common stressors noted were related to the category 'Z63' which coded for problems in the family and support group and this was followed by the category with the code 'Z61' which was for educational problems, (Table 5). None of the patients had stressors of unusually sudden or catastrophic nature.

Among the 119 patients, their past clinical history showed risk factors such as: previous attempt (9.24%), previous substance abuse (10.08%), past psychiatric consultation (7.56%) and past history of epilepsy (7.56%) (Table 6).

DISCUSSION

As the study was retrospective in nature it had its own inherent limitations and weaknesses. The clinical diagnosis was cross sectional and not by consensus. The records provided sufficient information for completing the study proforma.

The study sample was fairly large and despite, the policy of consistent referral practice, the psychiatry referral rate was only 66.5% and this was comparable to a report from another centre (Blake & Mitchell, 1978). As this was a retrospective study, the reasons for patients not being referred for psychiatric evaluation could not be systematically studied. The reasons for not referring could be due to an early discharge request in view of increasing hospital cost or stigma associated with a psychiatric referral. It could be possible to reduce this figure with training of junior medical staff and improving consultation liaison services (Gardner et al., 1978).

In this study, majority of the patients who attempted suicide were in the age group of 20-30 years and this finding is comparable to studies from India (Venkoba Rao, 1965, Kumar, 1975) and abroad (Wexler et al., 1978). The sex ratio was equal as in a previous study (Gupta & Singh, 1981). In comparison to studies from the West (Weissman, 1971), majority of the patients were married. This could be due to the practice of early marriage in our culture (Sharma, 1992). Another possible reason could be that most of these patients were probably well adjusted individuals with no previous history of long standing psychiatric illness. The majority of suicide attempters from the urban area may be related to the location of the hospital.

Organophosphorous and organocarbamate poisoning was the most frequent method used by patients to attempt suicide and it was supported by other studies from India (Venkoba Rao, 1965; Bagadia et al., 1979). This is explained by the easy availability of insecticides and pesticides in most households. Overdose with prescription drugs such as barbiturates and antidepressants were the next most commonly employed method.

The relationship between suicidal behaviour and psychiatric diagnosis has always been a matter of debate. The psychiatric diagnosis depends on the method of identification and classificatory system adopted. Earlier Indian studies (Kumar, 1975, Gupta & Singh, 1981, Babu, 1988, Unni et al., 1995) on suicide and attempted suicide have used I.C.D.8, I.C.D 9, or D.S.M II & DSM III-R criteria.This is perhaps one of the first studies from India using I.C.D.10 diagnostic criteria. The provision for coding separately the psychiatric diagnosis, the drug or poison and the stressors with alphabetical codes F, X, and Z respectively makes I.C.D. 10 suitable for the purpose of studying patients who attempt suicide by poisoning. In the present study, the most common psychiatric diagnosis was Adjustment Disorder. This diagnosis was made with the same frequency by all the six attending psychiatrists. Among the adjustment disorder group, "Adjustment disorder with mixed disturbance of emotions and conduct" was the most common subgroup. This diagnostic label of I.C.D.10 explains well the type of emotions and behaviour seen in response to identified stress. Adjustment disorders are also known to

be associated with an increased risk of suicide attempts and suicide (Am.Psy.Assn., 1994). The clinical judgement required to make adjustment disorder diagnosis is quite complex since it involves a careful evaluation of symptoms, personality, nature, meaning, experience of stress and response to stress, all of which may vary across culture.

The second common psychiatric diagnosis was Depressive episode with the inclusion term Reactive depression, in 25 (27.2%) cases.There were very few cases with a diagnosis of Recurrent depressive disorder, Bipolar affective disorder or Dysthymia.

The third group of 17 (18.5%) patients received only a 'parasuicide' label and no psychiatric diagnosis. In previous studies (Venkoba Rao, 1965; Kessel, 1965) the corresponding figures were still high 59% and 24.3% respectively. Whether this group justifies a separate syndromal diagnosis is debatable (Kahan & Pattison, 1984).

The findings in the present study on the frequency of diagnosis of schizophrenia, schizoaffective disorder, organic mental disorder, substance abuse and mental retardation are comparable to other studies (Kumar, 1975, Gupta & Singh, 1981). Our rate of diagnosis of personality disorder may be an underestimate as mild or moderate degree of personality disorder is likely to be missed in a brief psychiatric interview as was done in this study.

Thus, in the present study on attempted self poisoning, the common I.C.D. 10 clinical psychiatric diagnosis, made during the immediate post recovery period were Adjustment Disorder and Depressive episode. There is a need to strengthen psychiatric consultations for patients who poison themselves. There is also a need to reconsider psychiatric nosology in this group of patients. A prospective study is underway to clarify some of these issues.

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