

ATTEMPTED SUICIDE IN HIMACHAL PRADESH

R.C. SHARMA

ABSTRACT

Seventy five cases of attempted suicide were studied over a period of one and half years (from January 1996 to June 1997). The findings revealed that 85.4% cases were in the age group 15-34 years. Females (53.4%) and unmarried (52%) attempted suicide more often. House wives (32%) and students (28%) were the two commonest occupational categories involved. Organophosphorus compounds were consumed by a vast majority (74.7%) of the cases. Psychiatric disorder (46.7%), quarrel with spouse/in-laws (13.4%), quarrel with parents/sibs (12%) and failure in love (10.6%) were the most common causes of attempted suicide while no cause could be determined in 14.7% of the cases. A need to launch suicide preventive measures and restriction in the sale of organophosphorus compounds is stressed.

Key Words : Attempted suicide, causes, methods, organophosphorus compounds

Attempted suicides have been on the rise and is a matter of global concern (Weissman, 1974; WHO chronicle, 1975; McClure, 1984). Several studies from India (Venkoba Rao, 1971; Sethi et al., 1978; Gupta & Singh, 1981; Ponnudurai et al., 1986) focusing on various factors related to attempted suicide also report high prevalence rate in suicide attempters. Attempted suicide being 4-8 times as common as suicide, carries significant medical and social implications (Stengel, 1964). The studies pertaining to psychological, social and demographic factors along with modes and causes of attempted suicide are helpful in formulating suicide prevention strategies at state and national level.

The aim of the present study was to assess the role of socio-demographic correlates and to establish the commonest methods and causes of attempted suicide.

MATERIAL AND METHOD

The present study included 75 cases of attempted suicide who were either admitted in

medical wards or were attending psychiatric out patient department of Indira Gandhi Medical College-Hospital, Shimla over a period of 1.5 years (from January 1996 to June 1997). All these cases were evaluated by a psychiatric consultant and their detailed history, socio-demographic characteristics, methods of attempting suicide and factors leading to suicidal attempt were recorded on a self innovated proforma. The admitted cases were seen almost every day to establish a rapport with them and their family members so that the antecedents of suicidal attempt could be studied in detail. Psychiatric diagnoses were framed on the lines of ICD-10 (WHO, 1992) diagnostic criteria.

RESULTS

a) Socio-demographic correlates: age of subjects ranged from 16 to 68 years. The peak age range for attempting suicide in both sexes was 15-24 years (53.4%) followed by 25-34 years (32%) and 35-44 years (12%). Out of 75 cases, there were 40 (53.4%) females as against 35 (46.6%) males (table 1). Unmarried subjects

ATTEMPTED SUICIDE IN HIMACHAL PRADESH

TABLE 1
AGE AND SEX DISTRIBUTION

Age (in years)	Male (N=35)	Female (N=40)	Total (N=75)
15-24	17 (22.7)	23 (30.7)	40 (53.4)
25-34	10 (13.3)	14 (18.7)	24 (32)
35-44	7 (9.3)	2 (2.7)	9 (12)
45-54	0 (0)	1 (1.3)	1 (1.3)
55 and above	1 (1.3)	0 (0)	1 (1.3)

Figures in parentheses indicate percentage

TABLE 2
MARITAL STATUS

	N= 75
Unmarried	39 (52)
Married	33 (44)
Divorced/Widowed	3 (4)

Figures in parentheses indicate percentage

TABLE 3
DOMICILE

	N=75
Urban*	24 (32)
Rural**	51 (68)

Figures in parentheses indicate percentage

*All from urban Shimla

**32 (62.7%) from rural Shimla, 19 (37.3%) from Solan, Kullu, Mandi, Hamirpur, Bilaspur & Kinnaur districts

TABLE 4
OCCUPATIONAL STATUS

	N=75
Housewife	24 (32)
Student	21 (28)
Agriculture	12 (16)
Office-work	6 (8)
Professional	4 (5.3)
Labourer	3 (4)
Unemployed	5 (6.7)

Figures in parentheses indicate percentage

TABLE 5
METHODS OF ATTEMPTING SUICIDE

	N=75
A) Chemical method	
Organophosphorus compounds	56 (74.7)
Drug overdosage (barbiturates, benzodiazepines, neuroleptics, analgesics)	8 (10.7)
Other (spirit, acetone, turpentine oil)	4 (5.3)
B) Physical method	
Wrist cutting	3 (4)
Drowning	1 (1.3)
Jumping from height	1 (1.3)
C) Unknown	
	2 (2.7)

Figures in parentheses indicate percentage

TABLE 6
CAUSES OF ATTEMPTING SUICIDE

	N=75
Querrel with spouse/in laws	10 (13.4)
Quarrel with parents/sibs	9 (12)
Failure in love	8 (10.6)
Psychiatric disorder	
Affective disorder (mania, major depression, bipolar, recurrent depression and dysthymia)	16 (21.4)
Acute stress reaction	8 (10.6)
Alcohol-drug dependence	5 (6.6)
Schizophrenia	4 (5.4)
Dissociative (conversion) disorder	2 (2.7)
Chronic medical disorder	2 (2.7)
Unknown (undertermined)	11 (14.6)

Figures in parentheses indicate percentage

were more (52%) in comparison to the married (44%) (table 2). Majority of the cases came from rural areas (68%) of Shimla and adjoining

districts (table 3). House wives were the commonest occupational category (32%) followed by students (28%) and agriculturists (16%). Professionals, office workers, labourers and unemployed together accounted for the remaining 24% of the suicide attempters (table 4).

b) Methods of attempting suicide : a vast majority of the cases (74.7%) consumed organophosphorus compounds to kill themselves, followed by drug overdosage (10.7%) and other chemical agents (5.3%). Physical methods like wrist cutting (4%), drowning (1.3%) and jumping from a height (1.3%) were less common modes of attempting suicide (table 5).

c) Causes of attempting suicide : quarrel with spouse/in-laws, quarrel with parents/sibs and failure in love were identified as most significant factors in 13.4%, 12% and 10.6% cases respectively, which lead to attempted suicide. Very few cases (2.7%) suffered from chronic medical disorder whereas a big majority (46.7%) were found to have different psychiatric diagnosis in which affective disorder (mania, major depression, bipolar & recurrent depression and dysthymia) (21.4%) was the commonest followed by acute stress reaction (10.6%), alcohol and drug dependence (6.6%), schizophrenia (5.4%) and dissociative (conversion) disorder (2.7%). In yet another group (14.6%) no definite cause for attempted suicide could be ascertained (table 6).

DISCUSSION

The commonest age groups attempting suicide in both sexes were 15-24 years followed by 25-34 years. Taken together, 85.4% cases fell in the age range 15-34 years (table 1). Most of the Indian studies also, have observed 15-34 years as the most risky age group for attempting suicide (Venkoba Rao, 1971; Sethi et al., 1978; Gupta & Singh, 1981; Ponnudurai et al., 1986). In two different reviews, Bridges & Koller (1966) and Holding et al. (1977) have also found attempted suicide to be more com-

mon among younger people. Earlier epidemiological studies from 1960-71 report 30 to 70 percent of the suicide attempters under 30 years of age (Weissman, 1974). However, Sato et al. (1993) from Japan have reported suicidal attempts to be most common in the age group 50-59 years and one of the reasons suggested by them for this finding is stronger suicidal ideas in older people than that in younger people in Japan.

Females attempted suicide more often (53.4%) than males in the present study. Weissman (1974) has also reported suicide attempts to be more common in young females. Contrary to this finding, many workers from India (Sethi et al., 1978; Gupta & Singh, 1981; Ponnudurai et al., 1986) and abroad (Okasha & Lotaif, 1979; Lee & Lee, 1982; Sato et al., 1993) have found male preponderance in their studies. The higher rate for females in the present communication might be explained on the basis of psychological and sociocultural reasons like inadequate opportunities to express emotional conflicts and a low social status accorded to women in the family. Tousignant & Mishara (1981) have remarked that blow to the ego by immediate environment and non availability of aggressive outlets for women account for large number of suicide world wide.

The finding of higher number of unmarried cases in the present study, has been observed by other investigators also (Sethi et al., 1978; Gupta and Singh, 1981; Ponnudurai et al., 1986).

A vast majority of people live in rural areas of Himachal Pradesh, the finding of a large percentage (68%) of suicide attempters from rural background is explained on the basis of this fact.

Housewives and students accounted for 32% and 28% occupational categories of suicide attempters respectively. Sethi et al. (1978) found 29.3% students and 18.7% housewives whereas Gupta & Singh (1981) noted 31% students and 16% housewives amongst the suicide attempters. Agriculture was yet another common occupation (16%), however, this is just

a reflection of the predominant occupation of the rural population.

Organophosphorus compounds were found to be the commonest mode of attempted suicide (74.7%) which is in conformity with the observations of most of the authors from India (Venkoba Rao, 1971; Gupta and Singh, 1981; Ponnudurai et al., 1986), United States (Reich et al., 1968), Sri Lanka (Burger, 1988), Jordan (Abu Al Ragheb and Salhab, 1989), Finland (Darakeh, 1989) and Japan (Sato et al., 1993). Easy availability of organophosphorus compounds appears to be an important factor in making them as agents of first choice in the present series.

Psychiatric disorder was the most frequent cause (46.7%) for suicidal attempt with affective disorder as the largest category (21.4%) followed by acute stress reaction (10.6%), alcohol and drug dependence (6.6%), schizophrenia (5.4%) and dissociative (conversion) disorder (2.7%). Several reports have indicated depression as the most common diagnosis in 35% to 80% of the attempted suicide cases (Weissman, 1974). Sethi et al. (1978) found neurotic depression in 22.7% schizophrenia in 10.7% and drug and alcohol addiction in 9.3% of the cases whereas Gupta & Singh (1981) reported neurotic depression in 24%, major depression in 6%, schizophrenia in 12% and drug dependence in 6% of the cases. Ponnudurai et al. (1986) and Sato et al. (1993) have also observed psychiatric ailment as a significant causative factor in 14% and 16.3% of the attempters respectively.

Quarrel with spouse/in-laws (13.4%) or parents/sibs (12%) was the next important cause of attempted suicide in the present study. Acute emotional perturbation due to failure in love (10.6%) precipitated suicidal attempt in another group of cases. Impulsivity in attempting suicide was a striking feature of these cases who were upturned by quarrel or love failure. Sethi et al. (1978) attributed marital friction (21.3%), family quarrels (21.3%) and love failure (20%) was the main factors leading to attempted suicide. Ponnudurai et al. (1986) found

quarrel and consequent scolding by significant family members in 25.6% of the cases like the present observation. Sato et al. (1993) too have cited interpersonal problems amongst family members (30.2%) as the precipitant of attempted suicide. The remaining cases (14.6%) where no cause for suicidal attempt could be determined, can't be ignored as they might not be revealing the true cause for the fear of social stigma or legal entanglement.

As reported by Venkoba Rao (1992), attempted suicide cases are on the rise in third world but they are under-reported due to various reasons. Thus the cases that we see, are probably the tip of the iceberg and effective suicide prevention measures need to be taken in the form of early identification of suicide prone individuals, provisions of better psychosocial and environment support to the youngsters to help them resolve their emotional crises. Furthermore, a restriction in the sale of organophosphorus chemicals as pleaded by other investigators (Ganapathi & Venkoba Rao, 1966; Nandi et al., 1979) also would make them less easily available and may help in decreasing the overall incidence of attempted suicide.

REFERENCES

- Abu Al-Ragheb, S.Y. & Salhab, A.S. (1989) A Jordanian experience. *American Journal of Forensic Medicine and Pathology*, 10, 221-225.
- Berger, L.R. (1988) Suicides and pesticides in Sri Lanka. *American Journal of Public Health*, 78, 826-828.
- Bridges, P.K. & Koller, K.M. (1966) Attempted suicide : a comparative study. *Comprehensive Psychiatry*, 7, 240-293.
- Darakeh, T.K. (1989) Suicide in Jordan (1980-1985). *Acta Psychiatrica Scandinavica*, 79, 241-244.
- Ganapathi, M.N. & Venkoba Rao, A. (1966) A study of suicide in Madurai. *Journal of Indian Medical Association*, 46, 18-23.
- Gupta, S.C. & Singh, H. (1981) Psychiatric illness in suicide attempters. *Indian Journal of*

Psychiatry, 23, 69-74.

Holding, T.A., Buglass, D., Duffy, J.C. & Kreitman, N. (1977) Parasuicide in Edinburgh- a seven year review (1968-1974). *British Journal of Psychiatry*, 130, 534-543.

Lee, S.H. & Lee, M.H. (1982) A social psychiatric study on suicide attempts in some areas of Kangwon district in Korea. *Journal of Korean Neuro Psychiatry Association*, 21, 462-470

Mc Clure, G.M.G. (1984) Recent trends in suicide among the young. *British Journal of Psychiatry*, 144, 134-138.

Nandi, D.N., Mukherjee, S.P., Banerjee, G., Ghosh, A., Boral, G.C., Chowdhary, A. & Bose, J. (1979) Is suicide preventable by restricting the availability of lethal agents. *Indian Journal of Psychiatry*, 21, 251-255.

Okasha, A. & Lotaif, F. (1979) Attempted suicide : an Egyptian investigation. *Acta Psychiatrica Scandinavica*, 60, 69-75.

Ponnudurai, R., Jayakar, J. & Saraswathy, M. (1986) Attempted suicides in Madras. *Indian Journal of Psychiatry*, 28, 59-62.

Reich, G.A., Davis, J.H. & Davies, J.E. (1968) Pesticide poisoning in South Florida. *Archives of Environmental Health*, 17, 768- 775.

Sato, T., Takeichi, M. & Hara, T. (1993) Suicide attempts by agricultural chemicals. *Indian*

Journal of Psychiatry, 35, 209-210.

Sethi, B.B., Gupta, S.C. & Singh, H. (1978) Psychosocial factors and personality characteristics in cases of attempted suicide. *Indian Journal of Psychiatry*, 20, 25-30.

Stengel, E. (1964) *Suicide and attempted suicide*. London : Penguin Books.

Tousignant, M. & Mishara, B.L. (1981) Suicide and culture : a review of literature (1969-1980). *Transcultural Psychiatric Research Review*, 18, 5-32.

Venkoba Rao, A. (1971) Suicide attempters in Madurai. *Journal of Indian Medical Association*, 57, 278-284.

Venkoba Rao, A. (1992) Parasuicide and suicide : some psychological considerations. *Indian Journal of Social Psychiatry*, 8, 3-7.

Weissman, M.M. (1974) The epidemiology of suicide attempts (1960-1971). *Archives of General Psychiatry*, 30, 737-746.

WHO (1975) Suicide and the young. *World Health Organisation Chronicle*, 29, 193-198.

WHO (1992) The ICD-10 classification of mental and behavioural disorder : clinical descriptions and diagnostic guidelines. Geneva WHO.

R.C. SHARMA*, M.D. (Psychiat.), Associate Professor, Department of Psychiatry, Indira Gandhi Medical College, Shimla- 171001

*Correspondence