



## Letters to the Editor AMJ 2011, 4, 6.

### A study of deliberate self-harm patients attending tertiary care teaching hospitals in south India

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Dear Editor,

Deliberate Self-Harm (DSH) is a complex and perplexing behaviour carrying a high risk for completed suicide. There is a paucity of systematic studies on DSH in India. Recent years have seen a trend towards increasing DSH among young people. In Indian studies various socio-cultural and environmental factors like a spouse’s alcohol problem, quarrels with family members, financial losses and the dowry system are reported as causes of DSH.<sup>1</sup>

We studied a socio-demographic profile of DSH patients referred to a tertiary care teaching hospital. This cross-sectional study was conducted over a period of two years from June 2008. The study was cleared by the institutional ethics committee. All participants gave their consent for the study. Study subjects were all those who presented to the emergency and regular outpatient departments with DSH. Patients were interviewed by a senior psychiatrist after they were stabilised medically. A pre-tested semi-structured format was used. Information was collected both from the patient and their family member separately. The results were analysed using statistical software (SPSS version 13), proportions; tests of significance like chi-square, Z test were used to analyse the data.

**Table 1: Age and sex distribution of DSH patients**

Age	Male (152)	Female (123)	Total (275)
Up to 19	15(9.86)	23(18.70)	38(13.82)
20–35	107(70.40)	83(67.48)	190(69.09)
>35	30(19.74)	17(13.82)	47(17.09)

A total of 275 patients were brought to the hospital with DSH during the study period of two years. Among these 152 (55.3%) were male and 123 (44.7%) were female. The mean age was 26.55 years. The youngest patient was 12-years-old and the oldest 65 years (Table 1). With regards family status, 150 (55%) belonged to nuclear families and we found married people outnumbered unmarried people (Table 2). With regards to education, 63% of subjects had studied up to the 10<sup>th</sup> grade and there was no significant difference in literacy levels of male and female subjects. Two-thirds of DSH patients came from a poor economic background. The number of subjects in each class increased as the level of economic class decreased in both female and male patients. This was statistically significant. ( $X^2=16.676$ ,  $P=0.002$ ) (Table 2). Furthermore, 9% of patients had a previous history of DSH. Self-poisoning with pesticides/insecticides was the most preferred method among DSH patients, with 262 (95.3%) patients adopting this method followed by attempted hanging in 8 cases (2.9%); 185 (67%) patients chose the home as the venue for the DSH. A statistical association was observed between place of DSH and gender ( $X^2=7.025$ ,  $p=0.008$ ); 75% of women compared to 60% of men preferred the home as the place for the DSH and this observed gender difference was significant ( $Z=2.7$ ,  $p<0.006$ ). Outside the home, 27% chose their fields and 6% their relatives’ home. Family stresses like domestic violence, adjustment problems with in-laws, alcoholic spouses and extramarital issues were common causes for DSH in 142 cases (52%) followed by financial crises and debt in 45 (20%) (Table 3). A significant finding



of this study was that approximately one-third (51/152) of male patients were under the influence of alcohol at the time of the DSH.

**Table 2: Socio-demographic profile of DSH patients**

Characteristic	Male	Female	Total
<b>Religion</b>			
Hindu	141(92.76)	118(95.9)	259(94.2)
Muslim	11 (7.3)	05 (4.1)	16(5.8)
<b>Residence</b>			
Urban	65 (42.76)	48(39.02)	113(41.1)
Rural	87 (57.23)	75(60.97)	162(58.9)
<b>Type of family</b>			
Nuclear	80 (52.63)	70 (57.0)	150(54.5)
Joint/Extended	72 (47.40)	53 (43.0)	125(45.5)
<b>Marital status</b>			
Married	97(63.81)	76(61.80)	173(62.90)
Unmarried	55(36.20)	47(38.20)	102(37.10)
<b>Education</b>			
Illiterate	32 (21.00)	36(29.26)	68 (24.7)
Primary & secondary	102(67.10)	72 (58.5)	174 (63.3)
College & above	18 (11.84)	15 (12.2)	33 (12)
<b>Occupation</b>			
Farmer/labourer	73 (48.02)	24(19.51)	97(35.3)
Self-employed	30 (19.73)	03(2.44)	33(12)
Government service	37 (24.34)	–	37(13.5)
Unemployed	05(3.28)	03(2.44)	08(2.90)
Student	07(4.60)	28(22.76)	35(12.72)
Housewife	–	65(52.8)	65(25.63)
<b>Socio-economic status</b>			
Class I	15 (9.8)	8(6.5)	23(8.4)
Class II	13(8.5)	10(8.13)	23(8.4)
Class III	20(13.15)	20(16.3)	40(14.54)
Class IV	92(60.52)	55(44.71)	147(53.45)
Class V	12(7.9)	30(24.40)	42(15.3)
$\chi^2=16.676, p=0.002$			

Young adults (<35 year) are victims of DSH for various reasons. In our study we found 82% patients in the less than 35 year age group and males exceeded females in number. The socio-cultural dominant roles of men in Indian society putting them at extra stress, socio-cultural beliefs and stigma attached with DSH may explain the higher number of males in the study. Risk of DSH was highest among people belonging to low socio-economic groups and those who were less educated. Factors like agricultural occupation, easy availability of pesticides in rural areas and carelessness in storing them in safe places may be attributed as possible reasons for choosing pesticides for

DSH in rural areas. It also brings attention to the urgent need to regulate the sale of these products and to increase public awareness about the danger of pesticides.

**Table 3: Methods, place and reasons for DSH**

Characteristic	Male	Female	Total
<b>Method</b>			
Poisoning/chemicals	142 (93.42)	120 (97.56)	262 (95.27)
Hanging	05 (3.2)	03 (2.43)	08 (2.9)
Injuries	05 (3.2)	–	05 (1.8)
<b>Place of attempt</b>			
Home	92 (60.52)	93 (75.62)	185 (67.27)
Outside field	47 (30.93)	13 (10.56)	60 (21.82)
Relatives' house	13 (8.55)	17 (13.82)	30 (10.91)
$\chi^2=7.025, p=0.008, Z=2.7, p<0.006$			
<b>Reasons for DSH</b>			
Family stress (domestic violence, quarrel with family members)	75 (49.34)	67 (54.47)	142 (51.63)
Marital disharmony	20 (13.15)	25 (20.32)	45 (16.36)
Financial debt/crisis	30 (19.73)	05 (4.06)	35 (13)
Exam stress/failure	07 (4.6)	08 (6.5)	15 (5.45)
Failed love affair	07 (4.6)	06 (4.87)	13 (4.72)
Illness	08 (5.26)	12 (9.75)	20 (7.27)
Job stress	05 (3.28)	–	05 (1.81)

When reasons for DSH were analysed family conflicts leading to stress emerged as the most common trigger for DSH in both sexes, followed by financial stress. These observations highlight the role of psychosocial issues leading to DSH; most of our findings were similar to another Indian study.<sup>2</sup> The differences we noted with our findings and some Western studies were, most of our subjects were male, married and living with their families. This is in contrast to the female, single and divorced subjects in the West.<sup>3</sup> All cases are recorded as medico-legal and not as DSH. They are reported to the police. This diverts the focus of management and probably discourages people from reporting DSH. Our study also noticed a relative lack of accessibility to professional and



systematic psychological and psychiatric help. This being a hospital-based cross-sectional study, the results lack the scope of causal inference and generalisability.

Sincerely

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## Scholarship students in private medical schools: An important source of support to Nepal's primary health system

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Dear Editor,

Nepal is a developing country in South Asia situated between China and India. The population of Nepal in 2006 was 25.6 million.<sup>1</sup> The country's expenditure on health constituted 5.3% of gross domestic product and there were 0.08 health centres per 100,000 population and two doctors of modern medicine

per 10,000 population.<sup>1</sup> Health personnel are unevenly distributed with the majority concentrated in urban areas. At the beginning of 2011 there were 17 medical colleges in Nepal<sup>2</sup> and 13 of these are in the private sector. Nepalese-owned private colleges provide 10%, while foreign-owned colleges provide 20%, of their seats on full tuition fee scholarship to Nepalese students selected through an entrance exam conducted by the Ministry of Education.<sup>3</sup> There are around 1,500 seats available in private schools and more than 200 students are being educated on full tuition scholarship. Over the last three years the government has made two years' rural service compulsory for scholarship students.

The first level of contact of most people with the healthcare system is the sub-health post and the next is the health post. Both are manned by paramedics. Sub-health posts are manned by certified medical assistants (CMAs) who undergo a one-year course after schooling followed by a three-month internship. Health assistants usually man the health posts and undergo a two-year course after completing 10 years of school education followed by six months of internship attached to a health post. Doctors are posted only at the next level of care, the primary health centre (PHC). From the PHC patients are referred to the district hospital, then the zonal or regional hospital and finally to central institutions in Kathmandu. There are 75 districts in the country, 14 zones and five development regions. Newly graduated doctors could be posted at all levels above the PHC. At present scholarship students have and are being posted in many PHCs, district and zonal hospitals. The first set of students posted in 2008 have completed their two years of compulsory rural service.

Many students taught by the author are now working in rural areas and some have also opted for permanent rural service after finishing their compulsory service. The government provides preference for post-graduation to doctors who have worked in rural areas. The author

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