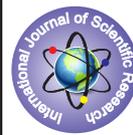


## DEMOGRAPHIC PROFILE OF DELIBERATE SELF HARM PATIENTS IN A TERTIARY CARE HOSPITAL



### Medicine

**KEYWORDS:** Deliberate self Harm, Suicide, Poisoning

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### ABSTRACT

**Objective:** To evaluate the demographic profile & the method of DSH & the incidence of mortality, in patients who presented to MES medical College Hospital. **Methods:** Data of 232 patients who reported to the emergency department of MES Medical College Hospital over a 5 year period (2007-2013) were evaluated. **Results:** Out of 232 cases majority of the patients were in the age group of 21-40 (52.6%), 58% of cases were married. Poisoning dominated the pattern of DSH (64.7%). Mortality rate in this series of attempted suicides was 3.8%. **Conclusion:** The highest incidence of Deliberate Self Harm (DSH) was among young adults and it is of serious concern as it is a strong predictor of suicide. The most common cause of Deliberate Self Harm was poisoning.

### INTRODUCTION:

Suicide is a leading cause of death especially in the especially among people aged 15 –44 years overtaken only by unintentional injuries & homicides. 1. Suicide is derived from the Latin word self-murder. It is a fatal act that represents the person's wish to die. There is a range between thinking about suicide & acting it out. 2 Most of those who 'attempted suicide' had performed their act in the belief that they were completely safe. For this reasoning they proposed that 'attempted suicide' be replaced by the 'deliberate self poisoning' & 'deliberate self injury'. 3 Morgan suggested the term Deliberate self harm (DSH) to provide a single term covering deliberate self poisoning & deliberate self injury. Suicide intent was considered the determining dimension to differentiate the suicide into two groups 4. DSH attempters had accumulation of life events, especially unpleasant & personal events, lower social support, poor coping styles & poor quality of life 5. Various factors that contributed to adolescent suicides were noted in the verbal autopsy and included acute stressors such as family conflicts, domestic violence, academic failures, unfulfilled romantic ideals & mental illness. <sup>6</sup>

All DSH must be taken seriously since it is difficult to predict who will go on to overt suicide in the future. Suicide is typically the product of chronic conflicts, but acute reactions can also lead to death in those with impulsivity or the availability of lethal or other unforgiving methods. The risk of suicide has been noted in some research to increase by 1.7% at 5 yrs from the initial attempt, 2.4% at 10 yrs & 3% at 15 yrs. <sup>7</sup>

### METHODOLOGY

This cross sectional study included all the patients with DSH who reported to the Emergency medicine Department of MES medical College Hospital during the five years of the period 2007-2013. The details about demographic profile, type of poisoning & mortality were collected using predesigned questionnaire from the records. Anonymity of identity and names were maintained.

**STATISTICS** – This was analysed by Epi info was used for data entry and analysis

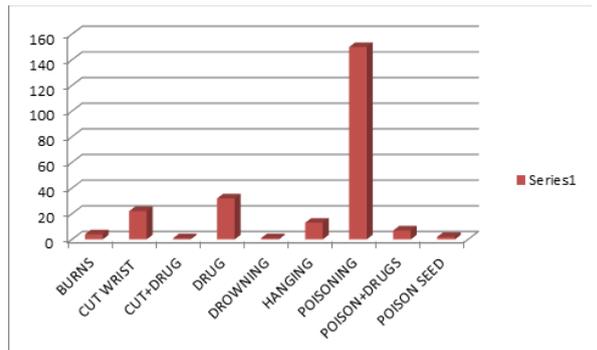
**RESULTS** -Among the 232 patients followed up,

The Mean age total was 31.14 +/-14.67; among the Males it was 29.52 +/-13.79 and among the Females 32.69 +/-15.41 as shown in Table 1

Age	Frequency	Percent
0-20	58	25.0
21-40	122	52.6
41-60	44	19.0
61-80	7	3.0
>80	1	.4
Total	232	100.0

**TABLE-1: AGE WISE DISTRIBUTION**

Poisoning was the main pattern used in DSH- 64.7% as shown in Figure 1



**FIGURE-1** Methods of Deliberate self Harm (DSH)

The ratio of Male:Female -115:117(49.6%:50.4%) as shown in table 2.

Gender	Frequency	Percent
F	117	50.4
M	115	49.6
Total	232	100.0

**TABLE 2-Gender wise distribution**

58% of cases who attempted DSH were married Mortality rate in this study was 3.8%.

### ANALYSIS & DISCUSSION:

#### Suicide rates

Kerala has one of the highest suicide rates among the major states in India as per official reports. In a recent study suicide rates were 44.7/100,000 for males & 26.8/100,000 for females in the 2002-2007 five year period. <sup>6,8</sup>

#### Age group

52.6% of the people involved were in the age group of 21-40 yrs of age. Their mean age was 31.14 yrs & this was similar to the study by Masuadeh Babakhanian et al 9 & Keith Hawton et al. 10 Among persons of 15 –44 years of age in high-income countries there are twice as many suicides and three times as many traffic-related deaths as homicides. These differences are much less marked in low-and middle income countries 1. Suicides are not distributed equally throughout the general population & they tend to rise with age. <sup>6</sup>

Male to Female ratio: In this study there was a higher ratio of female to male suicides.

In most of the studies worldwide & in India there is a higher male to female ratio in suicides. C. R Soman et al reported a male to female ratio of 1.7. 8, 11 However this ratio is reversed in the Chinese rural populations. Women in China are more likely than men to commit

suicide:<sup>12,13</sup>

Women in Kerala are well educated & enjoy health standards comparable to the developed countries<sup>14</sup>

Globally suicides are more common in men although the sex ratio is closer to 1 to 1 in developing countries, & a higher suicide rate has been reported in suicide rates in rural Chinese woman (30.4 per 100,000) than in Chinese men (23.8 per 100,000) 13 .58.2% of people were married people in this study. This does raise a question as to whether married victims were under greater mental stress than single individuals in their day to day lives.

#### Methods of Deliberate self Harm (DSH)-

Poisoning was the most common noted method used in DSH (64.7%), followed by over dosage with drugs (13.8%), cut wrist (9.5%) and hanging (5.6%). 3.4% had a combination of methods. In rural areas, the easy availability of pesticides in the homes of most families makes poisoning the preferred method of deliberate self harm. Hanging (44%) & poisoning with insecticide (40%), & drowning (7%) were the methods most commonly employed<sup>2</sup>

#### Mental illness

In this study only 9% had history of treatment for psychiatric illness. 47% had no psychiatric illness.

43% of patients were not evaluated for psychiatric illness or because the records were not available. A majority of patients involved in DSH attempts were impulsive and follow stressful life events.

In the study by Amit Kumar Bhattacharya et al they had two groups- 35.35% had no psychiatric disorder in the low intent group. They also had a high intent group which had a higher percentage of psychiatric illness which included adjustment disorder with depressed mood (26.73%), depressive disorder (28.7%) or bipolar disorder (2.97%) also a co diagnosis of alcohol dependence (4.95%)<sup>15</sup>

#### Repeated attempts:

5% of patients had a history of more than 1 attempt. 2% had a history of 3 attempts or 4 attempts. The risk in the first year for suicide after DSH in the UK is 1%<sup>16</sup>

The strongest predictor of suicide is previous DSH, which is found in 40-60% of suicides<sup>17</sup>

**CONCLUSION:** Suicide remains a leading cause of mortality especially in the young adults preceded only by road traffic accidents & homicide. The highest incidence of Deliberate Self Harm (DSH) were among young adults in the age group 21-40 yrs and it is of serious concern as it is a strong predictor of suicide. The incidence of those attempting DSH was marginally more in females. The higher rate of DSH in married people does raise the question of increased stressors in married life. Self poisoning remains a major mode of Deliberate Self Harm.

**LIMITATIONS-**The sample size was small and short duration of this study. This was a retrospective cross sectional study & clinical details were found inadequate. A larger multicentric study could help to realize the importance of Deliberate Self Harm and thus eventually a national registry could be maintained.

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