

## Self Poisoning Deaths

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### Abstract

Suicide is nothing but self-killing which is a growing problem in developing as well as developed countries. Developing countries are suffering with suicide by agricultural poison whereas in developed countries it is by drugs. To analyze the situation of suicides by insecticide in males the present study is conducted in Hyderabad in department of forensic medicine, osmania medical college, hyderabad. Total of 132 male cases of suicide by insecticides are observed. In this most of the deaths are in the age group of 41-50 years with financial health related problems. The decreasing order of insecticides to commit suicide are organophosphorus, organochlorins, carbamate.

**Keywords:** Suicide; Insecticide; Male.

### Introduction

The word "suicide" was first used by the English author, Sir Thomas Browne in 1642 in his treatise "Religio Medici". The word originated from SUI (of oneself) and CAEDES (murder). Durkheim (1858-1917) defined suicide as "death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result" this excludes those who serve the attempt.

Suicide is among the top three causes of death among youth worldwide. According to the WHO, every year, almost one million people die from suicide and 20 times more people attempt suicide; a global mortality rate of 16 per 100,000, or one death every 40 seconds and one attempt every 3 seconds, on average. India ranks 43<sup>rd</sup> in descending order of rates of suicide with a rate of 10.6/100,000 reported in 2009 (WHO suicide rates) [2]. According to NCRB 2010 report In India, during 2009 consumption of a

poison (33.6%), hanging (31.5%), self-immolation (9.2%), and drowning (6.1%) were the commonest modes of suicide [3,4]. Jumping from buildings accounted for 1.5%. Studies show that consumption of pesticides, such as the readily available agricultural pesticides in rural areas, is the commonest means of suicide and attempted suicide in India [5,6,7] and in rural areas of low income countries [8]. Agricultural chemical poisoning has also been reported in Japan [9], Thailand [10], Sri Lanka [11], Bangladesh [12], and the USA [13]. Men are more likely to use organophosphate poisons and women are more likely to use plant poisons [14]. The use of plant poisons as a means of suicide/attempted suicide is more common in India and south-east Asia [15]. It is however, interesting to note that the increased accessibility to plant poisons over the internet has led to reports of their use in other parts of the world as well [16,17]. The use of aluminium phosphide, a fumigant used to protect grain stores, is associated with a case fatality of >70% and is a particular feature of self-poisoning in northern India [18].

### *Aims and Objectives*

The study was conducted to find out:

- The Incidence and pattern of insecticidal poisoning in males.
- The risk factors for control of incidents of death due to poisoning.

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## Material and Methods

The present study is done in Department of Forensic Medicine, Osmania Medical College Hyderabad In 2013 on suicidal deaths by insecticidal poisons in males. Required information is collected from Inquest reports, RFSL reports and from family members of deceased with personal discussion. In this study male suicides by inorganic insecticide poisons are taken into consideration. Victims who are died due to organic insecticide are excluded.

## Results

The number of Post mortem examinations conducted by the Department of Forensic Medicine Osmania Medical College, Hyderabad are 5082 in 2013. The total number of suicides committed by insecticidal poisoning is coming to 132(2.6%) in the study period. Female deaths are 25(0.5%) by insecticidal poisons.

In the age distribution there is an increasing incidence from 20 years to 50 years then decrease in the incidence of deaths. Maximum deaths of 35(26.5%) occurred in the age group of 41-50 years. Then 27(20.5%) in 21-30 years, 28(21.25%) in 31-40 years, 20(15.2%) in 51-60, 16(12.1%) in 61-70 years, 2(1.6%) deaths in each age group of 11-20 years, 71-80 years, 81-90 years. Married persons are among the 110 (83.3%) and unmarried are 22 (17.7%). 61 (46.2%) are illiterates; 59(44.7%) has primary education; 9 (6.9%) has secondary education; 3 (2.3%) are graduates.

121 (91.7%) are habitat in rural areas; 7 (5.3%) are from sub-urban area of towns and 4(3.0%) are living in city. 92 (69.7%) are farmers by their occupation; 16 (12.1%) are business men 10 (7.6%) has employed in private agencies; 5 (3.8%) are government employees, 5(3.8%) are laborers; 4 (3.0%) victims are not working anywhere and 2(1.5%) are students. 14 (10.6%) persons died on the spot because nobody observed them. 20(15.2%) of them are attended deaths and died within 6 hours from consumption. 45 (34.0%) persons survived between 6 to 24 hours. 34 (25.8%) persons died in between 1 to 3 days. And another 18 (13.6%) persons had a longer hospital stay and died after three days. The longest stay in the hospital was 21 days for a case of organophosphate poisoning.

Most of the deaths are committed by consuming Organo Phosphate compounds. They accounted for 110 (83.3%) deaths of total 132. 14(10.6%) persons

consumed Organo Chlorine compounds; 8 (6.0%) persons consumed Carbamate. Financial reasons are the leading precipitating factors for committing suicides in the present study and 65 (49.2%) persons died for this. The next leading factor is the health problems, this accounts 37 (28.0%), Maladjustment with the family members is also another leading cause and 12 (9.0%) persons are died for this reason. Failure in love has taken 6 (4.6%) person and failure in education 2 (1.5%) persons.

## Discussion and Conclusion

Suicide is one of the leading manner of deaths all over the globe.

It is found that the total number of deaths due to insecticidal poison are 132 in the calendar year 2013. It seems the number is less because people are choosing other methods to commit suicide because insecticidal poisons are not easily available to all persons. The vulnerable age group found to be 21 years to 50 years with peaks in 41 years to 50 years, because at this age group people have to fulfill many family responsibilities.

Most of the victims are from illiteracy group and from rural background. This gives us information that these are the risk group persons on whom vigilance should be kept constantly. The people in urban or sub-urban area are adopting other methods to commit suicide as hanging or burns also. Farmers are at risk in the present study because of their easy access to insecticidal substances.

14 persons were not seen immediately after they consumed the poison. They died on the spot. This is a voluminous number in expressing the unattended deaths. Majority of the victims are transported to the nearest hospital soon they witnessed the act. Even after that deaths are more because there is delay in transportation and giving of proper treatment.

The commonest poison consumed is Organo Phosphate compound. It is the same found in earlier studies also. This is because of the easy access to this insecticide. Recently Organo Chloro compound consumption is coming down as it is not preferred by the farmers as an insecticide.

Financial problems are the leading precipitating factors, followed by the health problems which include pain abdomen in young persons and incurable diseases in elderly persons. maladjustment with family members, Failure in education and failure in love are important aspects to be addressed, as because these are all preventable deaths.

*Suggestions*

Suicide is an important, largely preventable public health problem

- Early detection and adequate treatment to all vulnerable populations. They need counseling in adoptive positive health, they also need family and social support.
- Strict vigilance should be maintained in selling insecticides.
- All insecticides are properly labeled about its antidotes
- All health care facilities should be strengthened of with availability of all lifesaving drugs and proffer training should be given to all health care professionals in life saving measures.
- The role of the media is becoming increasingly relevant. A delicate balance needs to be maintained between press freedom and responsibility of the press to minimize the harm to vulnerable individuals.

*Conflict of Interest:* no

- Ethical comity clearance is taken
- Source of funding- self

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