

Research Article**Epidemiology of Suicidal Cases in Rural Area****Vijay Kumar AG^{1*}, Shivaramu MG², Kumar U³**¹Assistant Professor, Department of Forensic Medicine & Toxicology, Adichunchanagiri Institute of Medical Sciences, B G Nagara, Nagamangala Taluk, Mandya, Karnataka State, India²Principal and Professor, Department of Forensic Medicine & Toxicology, Adichunchanagiri Institute of Medical Sciences, B G Nagara, Nagamangala Taluk, Mandya, Karnataka State, India³Associate Professor, Department of Forensic Medicine & Toxicology, Adichunchanagiri Institute of Medical Sciences, B G Nagara, Nagamangala Taluk, Mandya, Karnataka State, India***Corresponding author**

Vijay Kumar AG

Email: vijay.fmt@rediffmail.com

Abstract: Suicide is the act of intentionally causing one's own death. The most commonly used method of suicide varies including hanging, pesticide poisoning, and burns. In this retrospective study, cases autopsied during the period 1st January 2011 to 31st December 2013 were analyzed at the Department of Forensic Medicine & Toxicology, AIMS, B G Nagar, and Karnataka. In the present study total numbers of autopsied cases during 2011 to 2013 were 323. In that manner of death was suicide in 22 cases. Poisoning was the common method of suicide because of easy availability of pesticides in rural area. In the rural areas, males commit two to three times more often than females, but females attempt suicide four times more often while males use more lethal means to end their lives. Suicide prevention is a term used for the collective efforts to reduce the incidence of suicide through preventive measures. Reducing access to methods, such as firearms or toxins reduces the risk of suicide.**Keywords:** Suicide, Rural area.

INTRODUCTION

Suicide is the act of intentionally causing one's own death. The most common methods employed for committing suicide include hanging, pesticide poisoning, and burns [1].

Etiology for suicide is mental disorders, drug abuse, psychological diseases, family and social problems, and genetics. Financial burden such as poverty, unemployment, homelessness, and discrimination may induce suicidal thoughts. About 15–40% of people die with death note. Genetically problem appears to account for between 38% and 55% of suicidal behaviors[1].

Around the world, 30% of suicides are from organo-phosphorus and rat poison. The use of this method varies markedly from 4% in Europe to more than 50% in the Pacific region. In most of the countries, death due to drug overdoses account for approximately 60% of suicides among women and 30% among men. The method of death rate varies: firearms 80-90%,

drowning 65-80%, hanging 60-85%, car exhaust 40-60%, jumping 35-60%, charcoal burning 40-50%, pesticides 6-75%, and medication overdose 1.5-4%.[2].

About 0.5% to 1.4% of people die by suicide worldwide, in 2008/2009, suicide is the 10th leading cause of death with about 800,000 to one million people dying annually, giving a mortality rate of 11.6 per 100,000 persons per year[3].

In India, death by suicide used to be illegal and surviving family could face legal difficulties. The government of India decided to repeal the law in 2014[4].

METHODOLOGY

In this retrospective study, cases autopsied during the period 1st January 2011 to 31st December 2013 were analyzed at the Department of Forensic Medicine & Toxicology, AIMS, B G Nagar, and Karnataka. During this study several epidemiological observations and their results were considered.

RESULTS

Table 1: Incidence of suicidal cases

Total no. of autopsied cases	Total no. of suicidal cases
323	22

Table 2: Age and Sex wise distribution of cases

Sl. No.	Age Group	No. of Cases	Male	Female	Total
1	< 20 Yrs	03	00	03	03
2	21 – 30 Yrs	07	04	03	07
3	31- 40 Yrs	06	04	02	06
4	41- 50 Yrs	03	02	01	03
5	>50 Yrs	03	02	01	03
Total		22			22

Table 3: Methods of suicide

Methods	No. of cases
Poisoning	06
Hanging	05
Drowning	08
Burns	03

DISCUSSION

In the present study total numbers of autopsied cases during 2011 to 2013 are 323. In that manner of death was suicide in 22 cases. Poisoning was the common method of suicide because of easy availability of pesticides in rural area. In the rural areas, males die two to three times more often by means of suicide than do females, although females attempt suicide four times more often. This has been attributed to males using more lethal means to end their lives.

In the Eastern Mediterranean countries, suicide rates are almost equal between males and females. For females the more rate of suicide is found in South Korea at 22 per 100,000, with more rates in South-East Asia and the Western Pacific generally[5].

The country wise percentage of deaths due to suicide in 2008 are Africa 0.5%, South-East Asia 1.9% Americas 1.2% and Europe 1.4%. Australia 8.6%, Canada 11.1%, China 12.7%, India 23.2%, UK 7.6%, US 11.4%, and South Korea 28.9%. It is the 10th leading cause of death in the United States in 2009 at about 36,000 cases a year, with about 650,000 people seen in emergency departments yearly due to attempting suicide. The country's rate among men in their 50's rose by nearly half in the decade 1999–2010. Lithuania, Japan and Hungary have the highest rates. The countries with the greatest absolute numbers of suicides are China and India accounting for more than half the total. In China suicide is the 5th leading cause of death[6].

In China, poisoning is the most common method of suicide. In Japan, seppuku or hara-kiri still occurs; but, hanging is the most common. Jumping to one's death is common in both Hong Kong and

Singapore at 50% and 80% respectively. In Switzerland, the most deaths are by hanging. In the United States, 57% of suicides are due to use of weapons like firearms. The next common cause was hanging in males and poisoning in females [7].

CONCLUSION

Suicide prevention refers to the collective efforts in order to reduce the incidence of suicide through preventive measures. The risk of suicide can be reduced by reducing access firearms, toxins, charcoal and barriers on bridges and subway platforms. Treatment of drug and alcohol addiction, depression, and those who have attempted suicide in the past may also be effective.

REFERENCE

1. Brent DA, Melhem N; Familial transmission of suicidal behavior. The Psychiatric clinics of North America, 2012; 31 (2): 157–77.
2. Tintinalli, Judith E; Emergency Medicine: A Comprehensive Study Guide (Emergency Medicine (Tintinalli)). New York: McGraw-Hill Companies. 2010; 1940–1946.
3. Värnik P; Suicide in the world". International Journal of Environmental Research and Public Health, 2014; 9 (3): 760–71.
4. Govt decides to repeal Section 309 from IPC; attempt to suicide no longer a crime. Zee News. December 10, 2014.
5. CDC finds suicide rates among middle-aged adults increased from 1999 to 2010". Centers for Disease Control and Prevention. May 2, 2013
6. Weiyuan C; Women and suicide in rural China". Bulletin of the World Health Organization, 2009; 87 (12): 888-9.
7. "U.S. Suicide Statistics. 2005.