

## Suicide and Its Public Health Importance in India

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### Abstract

Suicide is best understood as a multidimensional, multifactorial malaise and is emerging as an important public-health problem globally as well as in India. Currently, health system is not addressing this issue at all. The public-health approach is required to address this complex issue of suicide in the community, more particularly focusing on vulnerable, ignored and stigmatized groups. The paper draws together researchers, clinicians, societies, politicians, policy makers, volunteers and survivors in a concerted action to adopt proactive and leadership roles in suicide prevention and save the lives of thousands of young Indians.

**Keywords:** Sex; Stress; Adolescent; Marriage; Insanity; Dowry; Suicide

### Introduction

Suicide is estimated to contribute more than 2% to the global burden of disease by the year 2020. Suicide impacts the most vulnerable of the world's populations. Although suicide continues to remain a serious problem in high income countries but places a larger burden on low and middle income countries, which are often ill-equipped to meet the general health and mental health needs of their populations. Services are scarce and when they do exist, they are difficult to access and are under-resourced. Access to appropriate services as well as improved help seeking is essential to health and wellbeing. Suicide among youth is of particular concern [1]. Despite the evidence that many deaths are preventable, suicide is too often a low priority for governments and policy-makers. Suicide prevention is an integral component of the Mental Health Action Plan, with the goal of reducing the rate of suicide in countries by 10% by 2020 [2]. The objective of this paper is to prioritize suicide prevention on the global public health and public policy agendas and to raise awareness of suicide as a public health issue. It is an attempt made to review the unknown suicide with reference to age, sex, marital status, methods and causes of suicide.

The Government of India classifies a death as suicide if it meets the following three criteria [3]; it is an unnatural death; the intent to die originated within the person and there is a reason for the person to end his or her life. The reason may have been specified in a suicide note or unspecified. If one of these criteria is not met, the death may be classified as death because of illness, murder or in another statistical category. According to the World Health Organization, Geneva. Peeter Värnik claims China, India, Russia, USA, Japan, and South Korea are the biggest contributors to the absolute number of suicides in the world. Värnik claims India's adjusted annual suicide rate is 10.5 per 100,000, while the suicide rate for the world as a whole is 11.6 per 100,000 [4]. The reported rate of suicide in India varies from 11.4 per 100,000 from National Crime Records Bureau sources to as high as 20 per 100,000 from the WHO. However, the national estimates of suicides in the country are misleading due to poor civil registration system, under-reporting, variable standards in certifying deaths, legal problems, and stigma associated with it [5]. The varied rate can be explained by the fact that suicide was a criminal act under the Indian Penal Code until late 2014 and reporting by family may not be accurate. About 800,000 people commit suicide [6] worldwide every year, of these 135,000 (17%) are residents of India, a nation with 17.5% of world population. Between 1987 to 2007, the suicide rate increased from 7.9 to 10.3 per 100,000 with higher suicide rates in southern and eastern states of

India In 2012, Tamil Nadu (12.5% of all suicides), Maharashtra (11.9%) and West Bengal (11.0%) had the highest proportion of suicides. Among largely populated states, Tamil Nadu and Kerala had the highest suicide rates per 100,000 people in 2012. The male to female suicide ratio has been about 2:1 [8]. The 2010 Global Burden Disease Study shows that for all ages and both sexes, self harm is ranked 9th in causes of death. This ranking shoots up to 1 within the age group of 15-49 years. There is a distinct gender pattern though. For the ages of 15-24, self harm is the leading cause of death for females and the 2nd ranked for males. Overall however, the male to female ratio for completed suicide is reported to be 1.78:1 [8]. This is reflected in WHO rankings of Years of productive life lost (YPLL) as the female self harm goes down with increasing age while for men, the ranking remain about the same till middle-age. We can only speculate about this pattern. Young women in India have an increased pressure to get married and perhaps that is the underlying reason for suicide for females in the age range of 15-24 and certainly, among the married female the commonest cause of suicide was dowry. Empowerment of women, government and organizations helping women attain education and employment, agencies to aid in cases of divorce, widowhood and abuse, may all help to reduce suicide rates in women. For men reasons may include economic difficulties which would explain the spikes in suicide rates later in life.

1. The methods of suicide as reported by National Crime Records Bureau (NCRB) report in 2009 include poison (33.6%), hanging (31.5%), self-immolation (9.2%) and drowning (6.1%). A study, limited by geographical region, shows similar results with a surprising addition of suicide by firearm accounting for 16% of male suicides [9]. This is surprising due to high gun control in India. Gender differences are not so sharp with pesticide/poison and hanging being the most common methods for both males and females. However as a percentage more female suicides seem to result from poison ingestion. The NCRB report of 2009 further reports the causes of suicide-family problems (23.7%), illness (21%), unemployment (1.9%), love affairs (2.9%), drug

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abuse/addiction (2.3%), failure in examination (1.6%), bankruptcy or sudden change in economic status (2.5%), poverty (2.3%), and dowry dispute (2.3%). This can mostly be divided up as social/familial factors, economic factors and physical illness [10,11]. There are various estimates about psychiatric disorder prevalence in suicide ranging from about 10% to 25%. We think the wide range is due to the stigma attached to mental illness and the lack of proper psychiatric care.

2. Although social drinking is not a way of life in India, alcoholism plays a significant role in suicide in India. Alcohol dependence and abuse were found in 35% of suicides [12]. Around 30-50% of male suicides were under the influence of alcohol at the time of suicide and many wives have been driven to suicide by their alcoholic husbands. Not only were there a large number of alcoholic suicides but also many had come from alcoholic families and started consumption of alcohol early in life and were heavily dependent. The odds ratio (OR) for alcoholism was 8.25 (confidence interval: CI 2.9-3.2) in Chennai and 4.49 (CI 2.0-6.8) in Bangalore. According to a government report, only 4.74% of suicides in the country are due to mental disorders. Personality disorder was found in 20% of completed suicides. The OR was 9.5 (CI 2.29-84.11). Cluster B personality disorder was found in 12% of suicides. Co-morbid diagnosis was found only in 30% of suicides [13].

## Clusters of Suicides

The media sometimes gives intense publicity to "suicide clusters" - a series of suicides that occur mainly among young people in a small area within a short period of time. These have a contagious effect especially when they have been glamorized, provoking imitation or "copycat suicides". This phenomenon has been observed in India on many occasions, especially after the death of a celebrity, most often a movie star or a politician. The wide exposure given to these suicides by the media has led to suicides in a similar manner. Copying methods shown in movies are also not uncommon. This is a serious problem especially in India where film stars enjoy an iconic status and wield enormous influence especially over the young who often look up to them as role models.

1. The implementation of the recommendation of the Mandal Commission to reserve 27% of the positions for employment in Government created unrest in the student community and a student committed self-immolation in front of a group of people protesting against such a reservation. This was sensationalized and widely publicized by the media. There was a spate of student self-immolation (n=31) around the country. These copycat suicides caused public outcry and was considered one of the reasons for the fall of the government in power at that time [14,15].

2. Religion acts as a protective factor both at the individual and societal levels. The often-debated question is whether the social network offered by religion is protective or whether it is the individual's faith. Gururaj et al. also found that lack of religious belief was a risk factor (OR 19.18, CI 4.17-10.37) [16]

3. Risk of suicide may decrease with increased weight and is low in obese persons [17]. The connection is not well understood, but it is hypothesized that elevated body weight results in higher circulating levels of tryptophan, serotonin and leptin brings down impulsivity [18]. While mental health problems play a role which varies across different contexts, other factors, such as cultural and socio-economic status, are also particularly influential. The impact of suicide on the survivors, such as spouses, parents, children, family, friends, co-workers, and peers who are left behind, is significant, both immediately and in the long-term [19].

4. Besides these, India's economy vastly is dependent upon on agriculture with around 60% of its people directly or indirectly banking upon it. There are various reasons like droughts, lack of better prices, exploitation by middlemen, use of genetically modified seed, public health and government economic policies, inability to pay loans etc. which lead a large number of Indian farmers to series of suicides. No doubt, farmers suicide is a global phenomenon. Outside India, studies in Sri Lanka, USA, Canada, England and Australia have identified farming as a high stress profession that is associated with a higher suicide rate than the general population [20].

5. Prevention policies: Three pronged attack for suicide prevention: A three pronged attack to combat suicide suggested in a 2003 monograph was (1) reducing social isolation, (2) preventing social disintegration, and (3) treating mental disorders (4) Banning of pesticides & ropes [21]. Legislatively, poison and pesticide control is important since it is the leading method of suicide. Clearly a multitude of actions need to be taken together and implemented to address the problem of suicide in India and elsewhere [22,23].

a. Moreover, prevention strategies can only be formulated on the basis of solid research on vulnerable groups, methods and causes. So far, due to the criminalization of suicide, all statistics on suicide in India may not be very reliable. Communities play a critical role in suicide prevention. They can provide social support to vulnerable individuals and engage in follow-up care, fight stigma and support those bereaved by suicide.

b. Legislation: At the beginning of the nineteenth century, most countries around the world had laws that provided for punishment, including jail sentences, for persons who attempted suicide. However, in the last 50 years the situation has changed significantly. Most, but not all, countries have decriminalized suicide. In India, section 309 of the Indian Penal Code, Commission of suicide was illegal and survivor would face jail term of up to one year and fine under Section 309 of the Indian Penal Code but Government of India decided to repeal the law in 2014 [19].

c. The Mental Health Act that has been sitting on the Parliamentary agenda for years addresses many of these issues but is not prioritized. Currently, there is no insurance coverage for hospitalizations relating to psychiatric problems. This leads to multiple problems like altered diagnosis, under-reporting and skewed statistics, reduced access to care and a significant financial burden. Economic reasons are harder to mitigate as poverty is rampant in many parts. But government assistance and strengthened aid programs perhaps would help. Psychiatry, being the medical field most associated with self harm, should be de-stigmatized. This goes hand in hand with human rights as many psychiatric hospitals provide substandard care like chaining patients, abuse and unmodified Electro Convulsive Therapy (ECT). Better training and increased number of mental health professionals especially in rural areas and government hospitals is sorely needed [24,25].

d. School counsellors should be well trained in screening and psycho-education. May be even going as far as the government legislating mandatory presence of a counselor in educational settings. This can reach the affected group of young people committing suicide.

e. A national suicide hotline can be modelled after the childline Hotline which was created by the collaboration of many NGOs working together to prevent and/or provide support in instances on child abuse. Root causes also must be addressed. For women causes seem to be more social/ familial.

## Summary and Conclusion

The problem of suicide was endemic globally and it was spread across the year, not related to agricultural worries only, occurred almost equally in both sexes and affected the young population and it was also resulting in productivity loss. Suicide is a multifaceted problem and hence suicide prevention programs should also be multidimensional. Collaboration, coordination, cooperation and commitment are needed to develop and implement a national plan, which is cost-effective, appropriate and relevant to the needs of the community. In India, suicide prevention is more of a social and public health objective than a traditional exercise in the mental health sector. This would include creating awareness amongst community members, creating the mechanism to identify people with potential suicidal behavior and assuring availability and accessibility of counseling and mental health services at primary care level. The time is ripe for mental health professionals to adopt proactive and leadership roles in suicide prevention and save the lives of thousands of young Indians.

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