

Suicidal Trends in Different Indian States: A Retrospective Study

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Abstract

Suicide is an act to intentionally end one's life. District level suicide data were obtained from respective police stations for the year 2019-2020. Hanging is reported to be the most common strategy primarily on the grounds that materials for the hanging are easily available, followed by consumption of poison (primarily pesticide), drowning, burning, cut injury to wrist, drug overdose, alcohol overdose and fall from building. Present research showed that as indicated by sex, males are at high risk of committing suicide than that of females. The greatest number of suicide cases are reported for the age group of 31-40 years and the least can be seen in the age group below 10 years.

Keywords: Suicide; Hanging; Poisoning; Suffocation

Introduction

Suicide is an act to intentionally end one's own life [1]. About 800,000 people die by suicide worldwide every year [2], of these 135,000 (17%) are residents of India, a nation with 1.38 billion population [3]. Latest data released by NCRB (National Crime Record Bureau) had shown that India has reported an average 381 deaths by suicide daily in the year 2019. Suicidal rates in 2019 increased by 3.4% as compared to 2018 [4]. Suicide was the leading cause of over 300 death during the COVID-19 pandemic. According to the data, 80 people killed themselves due to the loneliness and fear of being tested positive for the virus followed by deaths of 51 migrants due to accidents on their way back home, 45 deaths associated with withdrawal symptoms and 36 deaths related to starvation and financial distress [5].

During the COVID-19 induced lockdown, more suicides were reported by hanging (64.4% vs. 42%), fewer cases of poisoning (8.5% vs. 21.5%) and fewer cases of jumping in front of train. It is also noted another curious feature during the lockdown: 39 alcohol –related suicides and 7 attempted suicides as compared to no such suicide or attempted cases in 2019. Of the 39 suicides, 34 were reported in the first two weeks of the lockdown- during which time all shops including those selling liquor were shut, forcing people into unplanned alcohol withdrawal [6]. On an average, the number of males committing suicide is twice than that of females. But at the regional level, there may be wide variations in the Male: female ratio due to various underlying factors. According to WHO data, the age standardized suicide rate in India is 16.4 per 100,000 for women (6th highest in the world) and 25.8 for men (ranking 22nd) [7].

The NCRB, which collects data from various police recorded cases, stated that for every 100 suicide deaths, 70.2 were male and 29.8 females and almost 68.4% of the male victims were married, whereas the ratio was 62.5 per cent for female victims, according to the data. Majority of suicides were reported in Maharashtra (18,916), followed by 13,493 in Tamil Nadu, 12,665 in West Bengal, 12,457 in Madhya Pradesh and 11,288 in Karnataka, accounting for 13.6 per cent, 9.7 per cent, 9.1 per cent, 9 per cent and 8.1 per cent of total such deaths (as of 2019), respectively. These five states accounted for 49.5 per cent of the total suicides reported in the country and the rest 50.5 per cent suicides were reported in the remaining 24 states and 7 Union Territories [8].

More than one lakh lives are lost each year because of suicide in India. Over the most recent thirty years (from 1975 to 2005), the suicide rate expanded by 43%. The rates were roughly something similar in 1975 and 1985; from 1985 to 1995 there was an increment of 35% and from 1995 to 2005, the increment was 5%. Larger part of the suicides (37.8%) in India are by those beneath the age of 30 years. The way that 71% of suicides in India are by people underneath the age of 44 years forces a gigantic social, enthusiastic and financial weight on society. Harming (34.8%), hanging (31.7%) and self-immolation (8.5%) were the basic techniques used to commit suicide [9].

This gender disparity might look surprising for most of us as females are perceived as more emotionally vulnerable to suicides, but the ratios show us a different side of the situation. Although women are at a higher risk to commit suicide, but they can easily convey their feelings which may solve some issues and change their mind regarding suicide, instead of bottling emotions up like males are usually expected to do. Males are expected to be strong and intimidating, so they usually refrain from being vulnerable in front of anyone as they are at a higher risk of being judged for just showing their feelings. Men are also more reticent than women to see a psychiatrist and seek therapy. Other factors can also be closely related to family/ financial issues and work stress.

Dangerously enough, rather than seeking help from established therapists regarding their mental health, some men attempt to "self-medicate" which does more harm than good. "There tends to be more substance use and alcohol use among males, which may just reflect the distress they're feeling – but we know it compounds the issue of suicide," says Harkavy-Friedman. Men are twice as likely as women to meet the criteria for alcohol dependence. Drinking can often lead to increase impulsive behavior and according to some studies, drinking deepens depression. Alcoholism is a known risk factor for suicide.

Types of suicide

According to the French sociologist David Emile Durkheim, he said that suicide was not only psychological but society played an important role in leading the person's death. Following are the types:

1. Egoistic suicide: According to Durkheim, when a man feels isolated from the society and feels that he is by himself and no other people cares about his existence. In other words, social detachment and extreme loneliness leads the person to destroy himself.
2. Altruistic suicide: This type of suicide takes place in the form of sacrifice in which an individual ends his life by heroic means. It mainly results when an individual and the group is too close. He gives up his life thinking that it's for the betterment of society.
3. Anomic suicide: When there is a social imbalance like a sudden drastic change that it gets difficult for the person to adjust in the situation given, those individuals have higher rate of committing suicide.
4. Fatalistic suicide: When someone dominates extremely over the other individual that he feels oppressed and other characteristic like lack of purpose and a feeling of hopelessness thinking that there's no way to escape from this, he/she commits suicide [10].

Ways in which suicide is committed

1. Suffocation- hanging
2. Poisoning- pesticides, drug overdose, carbon monoxide, other toxins.
3. Fire arm- gun control
4. Jumping from height
5. Less common methods- wounding, drowning, fasting and dehydration
6. Uncommon Method- disease, electrocution, car crashes, fire, animal attacks, ritual suicide, volcano jumping, aircraft, skydiving [11].

The most common way of suicide which can be encountered India is suicide by hanging followed by poisoning.

Methods

Data and study population

We used district-level suicide data obtained from respective police stations for the year 2019- 2020. The present study is a retrospective study of various suicide cases from districts of Orissa (Koraput, Nayagarh, and Bolgarh), Arunachal Pradesh (Itanagar), Uttar Pradesh (Central Noida), West Sikkim (Tikjuk) and Kerala (Ernakulum). Age, sex and mode of committing suicide were recorded in a pre-designed questionnaire.

Data description

Given above is the data of suicide cases from year 2019 to 2020. The tables are divided into 3 parts; Table 1 which provides data about the age wise distribution among the cases; Table 2 which shows the gender wise distribution and Table 3 (Table 3.1), (Table 3.2) exhibits the mode of committing suicide.

In Table 1 the age is categorized as 1-10, 11-20, 21-30...>80 so on. As we can observe that the least number of cases is seen in between the age of 1- 10 which has 5 cases and the most number of cases is seen in between the age gap of 31- 40 which is 118 cases furthermore if we look at the other age gaps we can see that 11-20 have 48 cases, 21- 30 have 92 cases, 41-50 have 115 cases which is the second highest, 51-60 seem to have 60 cases, 61-70 have 44 cases, 71-80 category have 28 cases, >80 shows 10 cases which is the second least numbered age category. The total number of cases is 526. In Table 2, the data shows the gender wise distribution where

we can clearly observe that males are highly inclined to commit suicide than females. Of the total 526 cases from the study conducted, the number of males are 382 and the females are 144.

Coming forward to Table 3.1 and Table 3.2 where the mode of committing suicide is given in year 2019 and 2020. In these tables (table 3.1 and table 3.2) there are total of eight different modes i.e. Hanging, Drowning, consumption of poison, Drug overdose, Alcohol overdose, burning, fall from building and cut injury to wrist in which we can clearly observe that hanging is the most preferred way of committing suicide in both the years wherein 2019 had 230 cases from the total of 303 cases and 2020 had 111 cases from the total of 223 cases followed by consumption of poison cases which is the second highest in both years.

AGE (YEARS)	NO. OF CASES
1-10	5
11-20	48
21-30	98
31-40	118
41-50	115
51-60	60
61-70	44
71-80	28
>80	10
TOTAL	526

Table 1: Age Wise Distribution

SEX	NO. OF CASES
Male	382
Female	144
Total	526

Table 2: Gender Wise Distribution

YEAR	TOTAL CASES	MODE	TOTAL
2019	303	Hanging	230
		Drowning	13
		Consumption of Poison	17
		Drug Overdose	8
		Alcohol Overdose	4
		Burning	13
		Fall from building	6
		Cut Injury to wrist	12

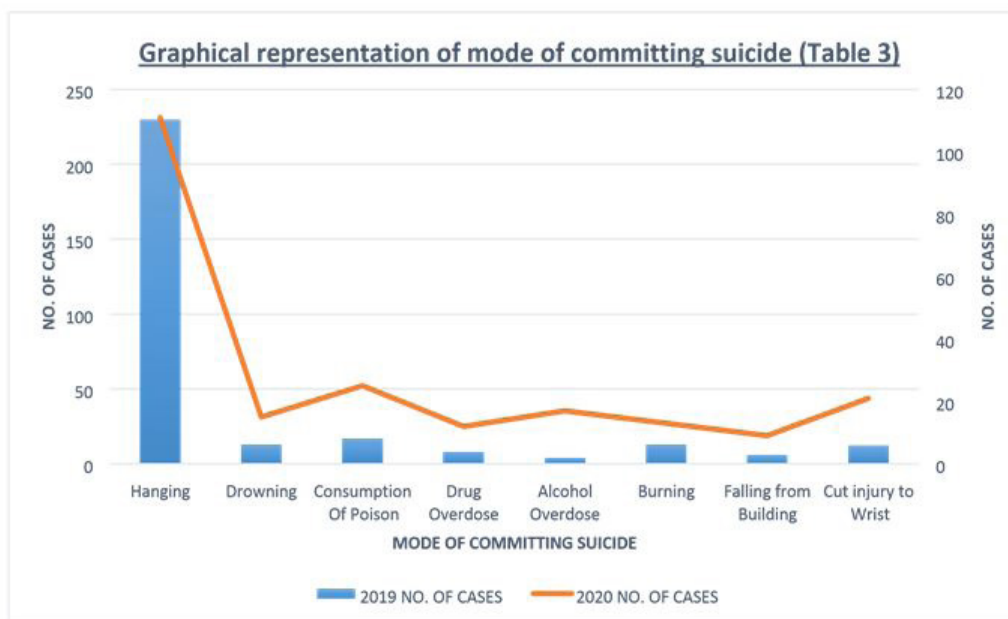
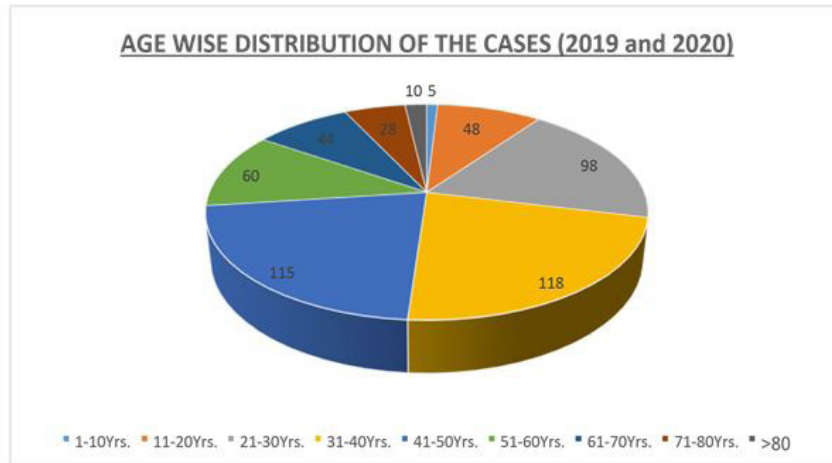
Table 3.1: Year 2019

YEAR	TOTAL CASES	MODE	TOTAL
2020	223	Hanging	111
		Drowning	15
		Consumption of poison	25
		Drug Overdose	12
		Alcohol Overdose	17
		Fall from building	9
		Burning	13
		Cut Injury to Wrist	21

Table 3.2: Year 2020

Discussion

In our study population, hanging was the most common way of committing suicide. Hanging was preferred due to two main reasons: the anticipated nature of a death from hanging; and accessibility. According to a study, those favoring hanging anticipated a certain, rapid and painless death with little awareness of dying and believed it was a 'clean' method that would not damage the body or leave harrowing images for others [12]. Materials for hanging are easily available and is 'simple' to perform without the need for planning



or technical knowledge. Hanging is thus seen as the 'quickest' and 'easiest' method with few barriers to completion and sometimes adopted despite not being a first choice [12]. Among younger age groups between 15-29 years old, suicide is the leading cause of death globally because these young people are by nature vulnerable to mental health problems, especially during their adolescence years because this period in life is characterized by movement, changes and transitions from one state to another [13].

Males in general are more likely to commit suicide rather than females, which is even seen among our study population. There are quite a few reasons why this is the scenario. Males are perceived as the stronger gender due to which they are always expected to be efficient both mentally and physically. These expectations of society are the major reason due to which males get depressed but wouldn't seek professional help as that's considered unmanly or weak. Men value independence and decisiveness, and they regard acknowledging a need for help as weakness and avoid it [14]. Women value interdependence, and they consult friends and readily accept help. Women consider decisions in a relationship context, taking many things into consideration, and they feel freer to change their minds. Factors that protect women from suicide are opposite to vulnerability factors in men [14].

Suicide have become a serious issue faced nationwide. We can't prevent suicides but a supportive approach to suicidal people risk assessment can enable us to manage the people who are at risk. Although errors of judgment are inevitable, errors of omission are preventable if we pay more attention towards the mental distress of our loved once and get them the necessary help [15].

Conclusion

Our research shows various manners by which suicide is reported from five different state of India out of which hanging is discovered to be the most common strategy primarily on the grounds that materials for the hanging are easily available and respondents thought about it as 'easy' to perform without the requirement for arranging or specialized information and the second most common method is followed by utilization of toxic substance, pesticides are by and large devoured since India is agronomically based society and these are effectively accessible and in modest cost.

Present research showed that as indicated by sex, males are at a high risk of committing suicide than that of female. It is basically a result of the gender roles that society has made up like customarily for men to be manly, they are relied upon to show ascribes like strength, force, intensity and less straightforwardly show feeling and fondness of which are opposed to discussing pressure or attempting to look for help for their downturn, men will frequently cover their pressure and manage their downturn through hurtful practices and activities. Other factors include liquor and medication misuse, social isolation, an inclination to pick more deadly strategies for self-harm and reluctance to look for help. Also, the larger part age bunch were form 31-50 years of age [12,16].

Conflict of Interest

All the authors have contributed equally for the work

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