

Suicidal Trends in Tribals of Bastar-A study of 11-Years

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Abstract

Background: Due to multiple external factors, the lifestyle and cultural factors of the Bastar tribes have undergone a significant shift in the last three decades. Our approach has been to extensively study the tribal communities to find out which Tribe is more vulnerable to suicide, what pattern they follow, and how it can be prevented.

Objective: The objective of the study was to study the pattern of Suicide cases in the tribal communities of Bastar on a Tribe-wide scale so that necessary steps can be taken to prevent Suicides in communities that have a high scale of Suicidal cases.

Material and Method: The data of postmortem reports of all cases of Suicidal deaths of tribals of Bastar region, Chhattisgarh, that occurred in 11 years (2011 to 2021), which had been brought to the mortuary of the Forensic Medicine department.

Results: Out of a total of 454 cases evaluated, it consisted predominantly of the male population of the age group 21- 30 years, with a maximum of 154 cases. The maximum number of cases found in the year 2020 was 68. Maximum cases occurred in the Months of January/June/December, with 44 cases. Tribe-wise, the Bhatra tribe stood 1st with 105 cases, followed by the Muria Tribe with 60 cases. The maximum number of suicide cases was from Hanging, 248 cases, Poisoning stood 2nd, 170 cases.

Conclusion: In our study, we have found that the Bhatra Tribe, followed by the Muria Tribe, has the leading cases, and the government needs to prioritize to prevent cases from occurring. Suicidal deaths among tribals were mainly due to Hanging, followed by poisoning, mainly consisting of organophosphate and organo-chloride poison; authorities and the government control and monitor the distribution and use of organophosphate and organo-chloride poison.

Keywords: Tribal; Suicide; Hanging; Poisoning; Bastar; Insecticide; Pesticide; Kaner seeds; self-immolation.

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Introduction

India has a total of 104,545,716 scheduled tribes, which constitute 8.6% of the total population (Census 2011)². Chhattisgarh has a 7,822,902 Scheduled Tribe population; of this, 3,873,191 are Males and 3,949,711 are Females. Chhattisgarh stands in 7th position with 7.5% of tribal population². As per the report of NCRB 'Accident Deaths and Suicide in India 2022', 56th Edition⁵ published by National Crime Records Bureau (Ministry of Home Affairs), Govt. of India¹ in Chapter 2, Suicides in India, page 196: Total number of suicides recorded in year 2022 = 1,70,924. In Chapter 2, Page 197,198: Chhattisgarh state accounted for 8446 cases, a percentage share of 4.9% in the year 2022 standing at 5th position (28.2%), while leading at 1st place was Sikkim (43.1%) in the year 2022 among all states/ Union Territories.

Bastar region is the country of tribes; about 70% of the total population is tribal, representing about 30% of the total tribal population of Chhattisgarh. Bastar is the homeland of numerous tribal groups like Abujh Maria, Muria, Dhurwa, Dorla, Bhatra, Halba, etc. Each tribal Tribe has its cultural boundary, and within this cultural boundary. The Bhatra are distributed on the eastern and western sides of Jagdalpur district and the eastern sides of the Kondagaon district. Traditionally, they are hunter, gatherers, and cultivators. While their ancestral trades were like making baskets, cultivation, hunting, collection of forest products like bees honey, herbs, tendu patta for beedi making etc, in context to today they have adopted modern practices also like starting of modern small scale industries cashew industry, making of packaged honey, herbal plants based product to domestic and international market, new types of farming methods are now adopted by them to get more benefits.

The Abujh Maria are found in about 237 villages of the Orcha block of Narayanpur and adjacent Bijapur and Dantewada districts; Their number is about 12000⁴. Abujh Maria is the only tribal group

in Bastar till date outside of External forces; their mental processes are not unlike those of urban people because of their centuries of isolation³. The Muria are mainly distributed in the plain forest area at Narayanpur, Kondagaon, and Antagarh. Their economic life centres around the forest, land, and settled cultivation. The significant issues are poor literacy rates, slow pace development, they have a distinct ethnic entity, limited livelihood opportunities, and high deforestation in recent years, as tribes have a high dependency on land and forest produce, which has led to a significant impact on the mental and social well-being of the tribes of Bastar.

Material and Method

Data of post-mortem reports of all cases of deaths of Suicidal deaths of tribals of Bastar region, Chhattisgarh, have been brought to the mortuary of Forensic Medicine department, Late Baliram Kashyap Government Medical College, Jagdalpur, District Bastar, Chhattisgarh, from 2011 to 2021, a total of 14 years have been scrutinized and evaluated. In each case, a detailed examination was done on the body to evaluate the method of suicide used, the Tribe that person belonged to, the Manner of death, and the Cause of death was thoroughly evaluated.

Results

The study found that 454 deaths were reported from 2011 to 2021. The following are the findings of the study.

Sex ratio of Suicidal cases among Tribal population: Male- 309 cases, Female-145 cases. In national level, As per the report of NCRB¹ in Chapter 2, Page 203,204: Male: Female Ratio = 1,22,724 (71.8%) : 48,172 (28.2%)

Age group in cases: It was divided into 10- 10 age groups, e.g., 1-10 years, 11-20 years, etc. Out of the 454 cases, the maximum number of cases were found in the age group of 21-30 years, 154 cases, and the Minimum number of cases were found in the age

group of 1- 10, 71-80 years,i.e.,2 cases. In national level as par NCRB¹ In Chapter 2, Page 203: The age group (18 -below 30 years) and persons of 30 years - below 45 years of age were the most vulnerable groups resorting to suicide. These age groups accounted for 34.6% and 31.8% of suicides, respectively, in the year 2022. [Figure 1]

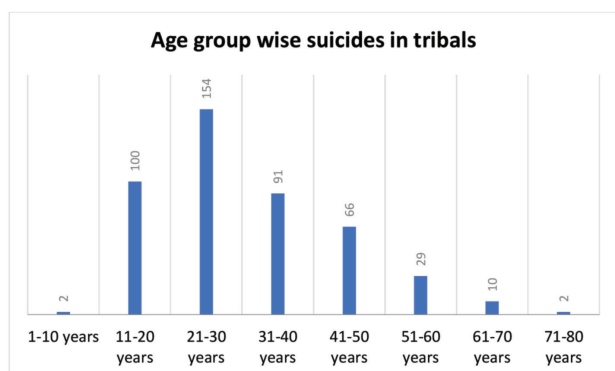


Figure 1

Year of Cases Reported: In a detailed analysis of the cases reported, out of the 454 cases,the Maximum number of cases were found in the year 2020- 68 cases, 2018-61,2019-51,2021-50, 2016-41, 2014 & 2015- 40, 2012- 11 cases.[Figure 2]

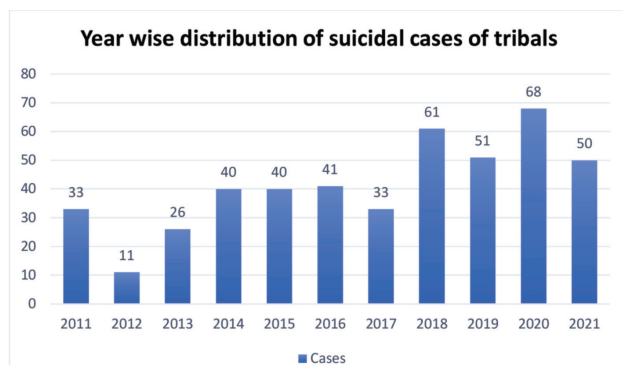
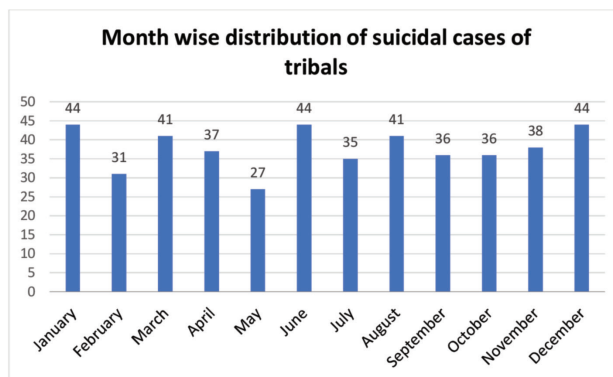


Figure 2

Month of reported cases in the period of 2011-2021: In a detailed analysis of the cases reported, it was found that out of the 454 cases,a maximum number of cases occurred in the Months of January, June, and December, -44 cases followed by March, August, -41 cases, and November-38 cases. [Figure3]



[Figure 3

The pattern of Suicide cases committed by the different tribal Tribes of the Bastar region:

Among the tribal communities of the Bastar region, Out of the 454 cases,

1. The Bhatra Tribes is predominant in the leading suicide cases with a total of 105 cases, maximum by Hanging=58 cases, Poisoning=19, Poisoning(Insecticide/Pesticide/Weedicide poison)=14, Self-immolation (kerosene oil)=6, Poisoning(alcohol)=3, Poisoning (Rat/Ant poison)=2 cases, Poisoning(super vasmol 33 dye)=1, Poisoning(Kaner seed) = 1, Cut throat =1 case.
2. The Muria Tribe stood second with a total of 60 suicidal cases maximum were of Hanging=31 cases, Poisoning=12, Poisoning(Insecticide/Pesticide/birdpoison)=6, Poisoning(alcohol)=4, Self-immolation (kerosene oil)=2, Poisoning (Rat/Ant poison)=2, Poisoning(mosquito kill poison)=1, Poisoning(Kaner seed) = 2 cases, Cutthroat =1, Jump from tractor=1 case.
3. The Madia Tribe stood third with 53 cases. Maximum by Hanging=18 cases, Poisoning=17, Poisoning(Insecticide/Pesticide/Agriculture/Bird poison)=12, Self-immolation(kerosene oil)=3, Poisoning (Ratpoison)=2, Poisoning (Ratanjot seed) = 1.
4. The Gond Tribe stood fourth with 51 cases, Hanging = 34 cases, Poisoning, Self-immolation (kerosene oil)=6, Poisoning (Insecticide poison)=4 cases, Poisoning (Rat poison)=1 case.

5. The Kashyap Tribe stood fifth with 33 cases, Hanging = 22 cases, Poisoning(Insecticide/Pesticide/bird poison) = 3, Self-immolation (kerosene oil)=3, Poisoning=1, Poisoning(super vasmol 33 dye)=2, Poisoning(Kaner seed) = 2 cases. The Baghel Tribe ranked sixth with 30 cases. The maximum incidents involve Hanging with 19 cases, Poisoning with 3, Pesticide Poisoning with 2, Kaner Seed Poisoning with 2, Rat Poisoning with 2 cases, and Self-immolation (using kerosene oil)=1, Cut by train=1 case.

6. The Dhurwa Tribe stood seventh with 27 cases. Maximum by Hanging = 19 cases, Poisoning(Insecticide/Pesticide/Bird poison) =4, Poisoning=3, Self-immolation (kerosene oil)=2 cases, Poisoning (alcohol)=1 case.

7. The Nag Tribe stood eighth with 24 cases. Maximum by Hanging = 17 cases, Poisoning cases, Poisoning (Kaner seed) = 1, Poisoning (Rat poison)=1 case.

8. The Halba Tribe stood ninth with 16 cases. Maximum by Hanging = 9 cases, Poisoning (insecticide poison) =3 cases, Poisoning (alcohol)=1, Poisoning (Rat poison) = 1, Drowning=1 case.

9. The Netam Tribe stood tenth with 9 cases. Maximum by Hanging=5 cases, Poisoning=2 cases, Self-immolation (kerosene oil)=1 case, Poisoning(insecticide poison)=1 case.

10. The Markam Tribe had 6 cases. Dhakad Tribeshad 5 cases. The NageTribe had 4 cases. Dorla, Kawasi Tribe had 2 cases. Bagh, Chander, Dhadiya, Dhruw, Dhruwa, Dadi, Gadwa, Gadwa(Nag), Hidma, Jeram, Jogi, Kalar, Karai, Karma, Korram, Kunjam, Nag(telga), Nage, Netam, Odel, Podem, Podiyami, Poyam, Samrath, Satnami, Sori, Toti, Urav, UsendiTribe had 1 case of suicide. [Figure 4]

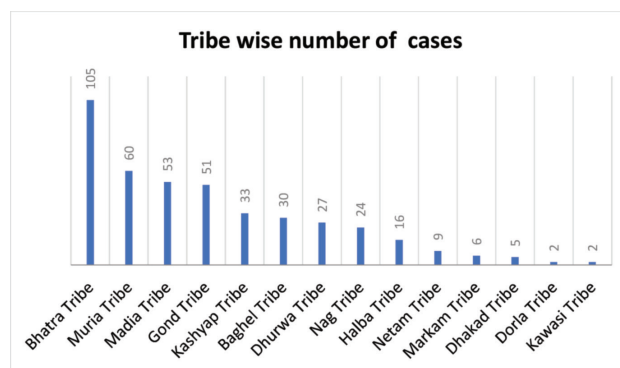


Figure 4

Pattern of Suicide Among the Tribal Population

The Maximum number of a pattern of suicide Out of the 454 cases, was fromHanging = 248 cases followed by Poisoning total 78 cases, followed by Poisoning(insecticide) = 37 cases; Poisoning(pesticide)/Burn injury (kerosene oil)/Poisoning (Kanerseed) = 12 cases; Poisoning (alcohol) = 10 cases; Poisoning(Rat kill poison)=8 cases; Poisoning(Bird poison)= 5 cases etc. [Figure 5]

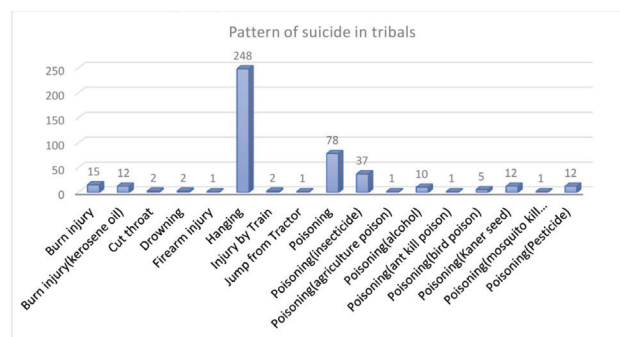


Figure 5

As per the report of NCRB 'Accident Deaths and Suicide in India 2022" 56th Edition¹published by National Crime Records Bureau(Ministry of Home Affairs) Govt. of India. In Chapter 2, Page 259 Table 2.12 Distribution of Suicides by Means/Mode Adopted during 2022(All India)

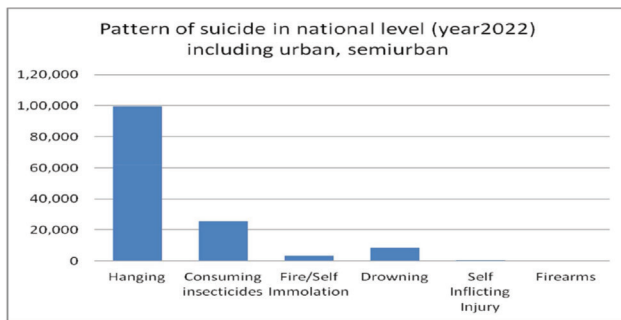


Figure 6

Discussion

Suicide is a multi-factorial issue; multiple initiatives need to be taken by the central and state governments to prevent suicides in the tribes of Bastar. A significant factor is deforestation, as given in the detailed study by Mohanty et.al. study on Lonja Saoras tribe of Odisha describing how the Lonja Saora's tribes had to migrate to urban areas due to deforestation weakening their traditional economy⁸.

As per Stone D et al "Suicides Among American Indian or Alaska Native Persons – National Violent Death Reporting System, United States, 2015–2020", published by Centre of Disease Control and Prevention, Morbidity and Mortality Weekly Report⁵; During 2015–2020, a total of 3,397 suicides among AI/AN persons and 179,850 suicides among non-AI/AN persons were recorded in NVDRS(National Violent Death Reporting System, United States): Male: Female ratio=2553(75.2):844(24.8)⁵; Maximum number of suicides were found in the Age group 24-44 years=1593(46.9%); Methods used were Hanging, strangulation, or suffocation=1,594 (46.9%), Firearm=1,261 (37.1%), Poisoning=1,261 (37.1%), Sharp instrument=74 (2.2), Motor vehicle=62(1.8%)⁵. While in our study in the year of 2015-2020 in tribes of Bastar, a total of 294 cases of suicide were found, Male: Female Ratio=204(69.4%): 90(30.6%), Maximum number of suicides cases was found on age group 25-44 years=107 cases, followed by 20-24 years=60 cases, 45-64 years=57 cases. In the method of suicide Hanging= 175(59.6% was predominant

method, followed by poisoning=84(28.6%), Sharp instrument=2(0.006%).

A recent study for framing policies to prevent suicides by MSG Mangala et al., "Suicide Prevention Strategy Framework for Madhya Pradesh" by MSG Mangala et al., for the Centre for Social Sector Development⁶, Atal Bihari Vajpayee Institute of Good Governance and Policy Analysis (AIGGPA)⁶, has proposed provisions and policies for the prevention of suicides.

As per Suicide Prevention Resource Center (SPRC) US federally supported resource center, report of "Recommended CSTE(Council of State and Territorial Epidemiologists) Indicators for Suicide among American Indians and Alaska Natives July 2018" has mentioned use of Tribal Surveillance Systems: Tribally-based surveillance systems have several distinct advantages: access to real-time data that may aid identification of emerging suicide clusters, trends, and characteristics; identification of characteristics and patterns that are unique to that American Indians/Alaska Natives community; and establishment of a vital management role and control for the American Indians/Alaska Natives community, which can foster culturally relevant interventions⁷. Two of such surveillance systems operating in the United States are 1. Maniilaq Association (Alaska): serving 12 federally recognized tribes in remote Northwest Alaska, developed the first-recorded tribal suicide surveillance system in an indigenous region, starting in 1990. 2. White Mountain Apache Tribe (Arizona): In 2001, the White Mountain Apache Tribe in Arizona created the Life surveillance system for reporting suicide death, attempts, ideation, self-injury, and binge substance use. Through a tribal resolution, suicide-related data are routinely collected by community members⁷; In the same way government should make a data set of the particular tribe group which is susceptible to suicides and address their needs and focus on preventable measures, just like in our data we had made a date of which group of tribe is more susceptible in committing suicides, the state

government of Chhattisgarh, can focus on such tribe group more and address their problems, and finding solutions.

Conclusion

In this retrospective study we have evaluated the point to be considered by the government to implement policies to reduce it so that tribes can lead their tradition and cultures; public health programs should be implemented to assess the mental health of tribals monthly. Suicidal deaths among tribals were mainly due to Hanging, followed by Poisoning, mainly consisting of organophosphate and organochloride poison. Authorities and governments should control and monitor the distribution and use of organophosphate and organochloride poisons. Research must focus on finding less toxic alternatives like herbal based which if consumed also not produce severe damage to body/cause death to humans/animals. A monitoring group should be established by the State/Central government for the prevention of the suicides in tribes of India

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