# Trends of suicide in Kamrup district

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## **Abstract**

This study was carried out at the Forensic Medicine Department of Gauhati Medical College Guwahati from 1st January 2016 to 1st December 2018. During that period in total 9835 bodies were received for post-mortem examination. Out of that 6758 (68.71 %) cases were males and 3077 (31.29%) cases were females. Total number of death due to suicide was 2345 cases. Out of which 1200 cases (17.76%) were males and 1145 cases (37.21 %) were females. The maximum number of suicidal deaths was found in the month of May. Commonest age group is 21-30 years, 900 cases (38.38%). Commonest cause of death was hanging, 1310 cases (55.86%). The reason of suicide was unknown in 1089 cases (46.44 %) that was followed by family problems in 485 cases (20.68%).

Key Words: Suicide, Autopsy, Cause of death, Reason for death.

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Received Date: 02/04/2019 Revised Date: 22/05/2019 Accepted Date: 10/07/2019

DOI: https://doi.org/10.26611/10181122

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	Accessed Date: 01 August 2019				

## **INTRODUCTION**

The history of suicide is almost as old as human civilization. In India the act of suicide is illegal under section 309 and 306 IPC. Suicidal death is emerging as one of the major health problem worldwide. It is due to rapidly growing population in the cities with unchecked urbanization of their periphery. This exposes more number of populations to the hazards of urban lifestyle. Suicide being a criminal act as well as an indirect indicator of social and Mental Health of the residents of community. This study was taken up

to establish the incidence of gender, age and commonly adopted means of suicide and also to evaluate the causative factors and to determined pattern of suicidal deaths in in Kamrup district.

## MATERIALS AND METHODOLOGY

This study was carried out from 1st January 2016 to 31st December 2018 at Gauhati Medical College and Hospital, Guwahati, Assam. During that period in total 9835 autopsies was carried out at the mortuary brought from all over Kamrup district. Out of which 2345 cases were found died due to suicide. The bodies were accompanied by a forwarding letter, dead body challan and copy of inquest report for autopsy. In all cases, a detailed history of the case and the particulars of the deceased such as age, sex and caste were collected from near relatives and investigating officers. The method of suicide was determined from the history and positive findings of post-mortem examination along with circumstantial and physical evidences. The data thus obtained were analyzed and the findings are presented in this paper.

#### **OBSERVATIONS AND DISCUSSION**

Table 1: Age and Sex wise distribution of Suicidal Cases

Year	Male		Female	9	Total		
	Total Autopsies	Suicides	Total Autopsies	Suicides	Autopsies	Suicides	
2016	2110	341	936	333	3046	674(22.13%)	
2017	2206	405	1009	381	3215	786(24.45%)	
2018	2442	454	1132	431	3574	885(24.76%)	
Total	6758	1200	3077	1145	9835	2345	
iotai	(100%)	(17.76%)	(100%)	(37.21%)	(100%)	(100%)	

From the above Table No.1 it was found that, from 1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2018, a total of 9835 post-mortem examinations were performed. Out of that 6758 (68.71 %) cases were males and 3077 (31.29%) cases were of females. While it was 65.2% male victims in the study by Bhagora, *et al.*<sup>2</sup> and 75.78 % in Gaurang J. Patel, *et al.*<sup>11</sup>. This is mainly because males are exposed to outdoor activities more than females. And 2345 cases were found died due to suicidal death, which was (23.84%) of total post-mortem cases. But if we look at the proportionate distribution of cases, it was found that out of the 3077 females, 1145 cases (37.21 %) had committed suicide, whereas, it was 1200 for males (17.76 %) out of 6758 male cases. It appears that females have more suicidal tendency as compared to males when we look at the percentage. But while looking at numbers, it is clear that males form around 50-51 % of the total population of the society and committed suicide in higher numbers as compared to females.

Table 2: Distribution of Suicide Cases according to Year and Month wise

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r→ Month↓	2016	2017	2018	Total
January	12	36	35	83(3.54%)
February	37	25	75	137(5.84%)
March	87	71	89	247(10.53%)
April	63	65	60	188(8.02%)
May	75	111	108	294(12.54%)
June	87	75	82	244(10.41%)
July	78	93	50	221(9.42%)
August	62	49	101	212(9.04%)
September	63	88	61	212(9.04%)
October	49	89	82	220(9.38%)
November	26	53	92	171(7.29%)
December	35	31	50	116(4.95%)
Total	674	786	885	2345 (100%)

In Table no 2, year and month wise distribution of cases shows that maximum number of suicidal death were found in the month of May 294 cases (12.54%) followed by March 247cases (10.53%). In contrast, other researchers observed that maximum suicides occur in October followed by June.<sup>2,3</sup>

Table 3: Age and Sex-wise Distribution of Suicides Cases

Age Groups	20	16	20	17	20	18	To	otal	Grand total	
(years)	M	F	M	F	M	F	M	F		
11-20	38	37	76	102	67	73	181	212	393(16.76%)	
21-30	141	135	137	141	159	187	437	463	900(38.38%)	
31-40	113	114	48	56	137	98	298	268	566(24.14%)	
41-50	31	27	74	43	54	34	159	104	263(11.21%)	
51-60	9	10	55	24	24	22	88	56	144(6.14%)	
61-70	3	3	10	9	8	10	21	22	43(1.83%)	
71-80	6	7	5	6	5	7	16	20	36(1.54%)	
Total	341	333	405	381	454	431	1200	1145	2345(100%)	
Grand total	6	74	78	86	885		(51.18%	(48.82%)	2343(100%)	

Maximum numbers of suicides, 900 cases (38.38%) were from the age group of 21–30 years, which is the young work force group. This finding was consistent with the findings of Sharma, *et al*,[4] Pankaj, *et al*,<sup>5</sup> and Kulkshetra, *et al*.<sup>6</sup> This was followed by 566 cases (24.14%) of 31-40 years of age, and 393 cases (16.76%) of 11-20 years. (Table No. 3)

Table 4: Distribution of Cases According to the Cause of Death

Cause of Death	2016	2017	2018	Total
Hanging	374	471	465	1310 (55.86%)
Poisoning	125	127	192	444 (18.94%)
Hit by railway	87	84	102	273 (11.64%)
Burns	50	63	79	192 (8.19%)
Jumping from height	25	31	34	90 (3.84%)
Drowning	12	8	11	31 (1.32%)
Cut throat	1	2	2	5 (0.21%)
Total	674	786	885	2345(100%)

From the above Table No. 4 it was seen that the most common method employed to commit suicide was hanging, comprising 1310 cases (55.86%) of suicidal deaths. Poisoning was the second most common cause of death, 444 cases (18.94%) suicidal deaths. This findings consistent with others Kulshrestha P *et al.* <sup>6</sup>, and Aggarwal KK *et al.* <sup>8</sup> But according to the observations of Pankaj, *et al* <sup>5</sup> burns was the most common cause of suicidal deaths among females. Here in this study, railway injury was the 3<sup>rd</sup> most common cause, with 273 (11.64%) cases, followed by self-inflicted burns 192 cases (8.19%).

Table 5: Distribution of Cases According to Reason for Suicide

Table 5: Distribution of Gases According to Reason for Salciae							
Reason of Death	2016	2017	2018	Total			
Family disharmony	150	188	147	485 (20.68%)			
Love related affairs	103	112	92	307(13.01%)			
Failures in examinations	63	78	68	209 (8.91%)			
Chronic diseases	25	31	45	101(4.31%)			
Mental problems	25	16	34	75(3.20%)			
Financial Problems	25	31	23	79(3.37%)			
Unknown	283	330	476	1089(46.44%)			
Total	674	786	885	2345 (100%)			

The reason of suicide in 1089 number of cases, (46.44 %) was unknown; where the reason for suicide could not be determined by discussing with the relatives. The second most common reason was family disharmony 485 cases (20.68 %). These findings are consistent with those of others Prajapati P *et al*<sup>5</sup>, Srivastava AK *et al*.9 and Dere RC *et al*.10 Failure in love related affairs was the 3<sup>rd</sup> most common reason 307 cases, (13.01%), followed by failure in examinations 209 cases, (8.91%). Chronic illness, mental and financial problems were the reason to commit suicide accordingly. (Table-5)

## **CONCLUSION**

From this study we have found that suicide is a social and mental problem of the residents of the society. To reduce the incidence of this problem, measures should be taken at various levels. eg.

- i) Social measures e.g. Proper education
- ii) Counselling of concerned populations
- iii) Strong Implementation of law
- iv) Identification of risk factors of suicide and then to take proper steps to reduce the incidence of suicide.

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Source of Support: None Declared Conflict of Interest: None Declared