

Original Research Article

Prevalence of depression among people who attempt suicide

Ramanujam G., Abdul Rahuman*, R. Mahalakshmi

Department of Psychiatry, Tirunelveli Medical College, Tirunelveli, Tamil Nadu - 627011, India

Received: 13 July 2017

Accepted: 09 August 2017

***Correspondence:**

Dr. Abdul Rahuman,

E-mail: drabdul95@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: This is a study aimed at assessing the prevalence of major depressive disorder among persons who attempted suicide.

Methods: The study involved 30 persons above 18 years of age of both sexes who have attempted suicide in the recent past. An informed consent was obtained from all of them. The prevalence of depression among those suicide attempters was studied based on major ICD-10 depression inventory. Also, intent rating based on Beck's suicide intent scale was done to assess the severity of suicide attempt. Questionnaire was given and the details were collected.

Results: The prevalence of depression is estimated to be 20%. Regarding the suicidal intent, 13 cases (43.33%) showed high intent for suicide.

Conclusions: Prevalence of depression is common among people who attempt suicide. Early diagnosis and intervention will reduce suicide attempts.

Keywords: Attempted suicide, Depression, Prevalence

INTRODUCTION

Suicide is a leading preventable cause of mortality. Globally about 800,000 people die every year due to suicide. Suicide was the second leading cause of death among 15-29 years olds globally in 2012.¹ In the last half of the 20th century, the overall US suicide rate reached its highest level in the 5-years period ending 1990. By 2000, the rate had fallen to approximately the 1980 level. Why the rate per 100,000 fell between 1990 and 2000 is unclear- it presumably relates to improved detection and treatment (particularly pharmacological) for mental illnesses. Rates continued to decrease until 2004, when they took a significant upturn.²

The prevalence of suicide is high in India. The national suicide rate is 21.1 per 1,00,000 population as per World Health Organization data 2012. More than one lakh people died by committing suicide. The suicide rates vary among states in India. The suicide rate is > 15 per 100,000 in

southern states while the rate is < 3 per 100,000 in northern states. High literacy, better reporting system, higher socio-economic status and higher expectations are implicated as possible causes.³

Majority of the suicide attempters are below the age 30 years.^{4,5} Thus, suicide causes heavy morbidity and mortality in the most productive group of a community. Many studies have found that women outnumber men in suicide attempts. But completed suicide rates remain equal for both men and women in India suggesting that compared to Western.⁶ Regarding methods used in suicide attempts, in most of the cases the attempt was insecticide poisoning.⁷

With regard to mental illnesses causing suicide, Esquirol has mentioned that 'all those who commit suicide are insane'. Though depression and other psychiatric illnesses like schizophrenia and personality disorders are commonly associated with suicide attempts, psychosocial

issues like lack of social cohesion, unemployment, interpersonal relationship issues were common causes of suicide attempts in India.^{4,8-9}

Depression is a major psychiatric illness associated with suicidal ideations and attempts. Nearly 15-20% of people with depression attempt suicide. Bagadia et al 1976 claim that depression was the most common psychiatric diagnosis made in suicide attempters. Similar findings have been confirmed in other studies.¹⁰⁻¹² Those who attempt are more likely to attempt suicide again.

Suicidal ideation is strongly associated with suicide attempts. In a study by Srivastava and Kumar 17% of patients with suicidal ideation attempted suicide.¹³ In a study among terminally ill cancer patients, conclude that suicidal ideation and desire for death appeared to be linked exclusively to the presence of a psychiatric disorder.¹⁴

Among depressed subject's suicidal ideation was present in about two-thirds of the individuals.¹⁵ About 16.6% of these subjects with suicidal ideation attempted suicide. Attempters also scored high in severity of suicidal ideation.¹⁶

Hence, this study was attempted to estimate the prevalence of depression among persons who attempted suicide and also to measure the severity of suicidal ideation.

METHODS

The permission from the ethical committee of the institution was obtained. 30 cases (age>18years) of attempted suicide who were admitted to Tirunelveli medical college hospital were interviewed with focus on psychosocial background, suicide intent rating and depression factors. An informed consent was obtained from all cases.

Inclusion criteria

- People who had been admitted for attempted suicide
- People above 18 years of age who are willing to participate.

Exclusion criteria

- Critically ill patients
- Those who are not willing to participate.

Beck's suicide ideation scale- the scale of suicidal ideation consists of 19 items which can be used to evaluate a patient's suicidal intentions. It can also be used to monitor a patient's response to interventions over time. The total score is 38.

Major depression inventory- is a self-report mood questionnaire developed by the World Health

Organization. It contains ten items and the scoring pattern is as follows:

- Mild depression MDI total score of 20 to 24
- Moderate depression MDI total score of 25 to 29
- Severe depression MDI total score of 30 or more.

RESULTS

Among the 30 cases of attempted suicide who were interviewed, 17 are males and 13 are females. Regarding method chosen:

Consumption of insecticides/pesticides (E.g. organophosphorus compounds), plant poisons (E.g. oleander seed), corrosives /chemicals (E.g. kerosene, phenol, hair dye, etc.), excess tablet intake (E.g. oral hypoglycemic agents, sleeping pills, etc.) are the common methods chosen. The commonest one being pesticide or insecticide poisoning (Table 1).

Table 1: Methods of suicide attempt.

Cases (N=30)	Diagnosis
13 (43.33%)	Insecticide poisoning
6 (20%)	Plant poisoning
6 (20%)	Corrosives poisoning
5 (16.66%)	Tablet poisoning

Insecticide poisoning was the commonest method.

Age factor

Almost 19 cases (63.33%) of attempted suicide belong to 18-30 years age group (Table 2).

Table 2: Age groups of persons attempting suicide.

Age group (in years)	Number of cases	Percentage
18-30	19	63.33
18-25	16	53.33
26-30	3	10
30-40	6	20
>40	5	16.66

Highest no. of suicide attempters were less than 30 years of age.

Family history

None of the 30 cases had positive family history of suicide.

Previous attempt

There was a previous attempt of suicide in 3 out of 30 (10%) cases. Among the three, two of them had high intent for the last attempt and 1 had medium intent. For a significant time period (more than half the time in the last 2 weeks prior to attempt), all the 3-experienced low mood and reduced appetite. Two of them had difficulty in

concentrating, trouble sleeping at night, reduced self-confidence and also felt like life wasn't worth living.

Suicidal intent

Some attempted suicides are carried out with little to no intention of cessation of life, while others clearly have no other goal. Since it is important to understand a patient's will to die in order to assess the severity of suicide attempt, intent rating was done among the 30 cases of suicide attempt. Of the 30 cases, 13(43.33%) showed high intent, 14 cases (46.66%) showed medium intent and 3 cases (10%) showed low intent (Table 3).

Table 3: Suicide intent among attempters.

Degree of intent	No. of persons	Percentage
High	13	43
Medium	14	47
Low	3	10

Regarding seriousness of attempt

10 out of 13 cases (76.92%) were saying that it was a serious attempt to end life whereas 3 out of 13 cases (23.07%) did not seriously attempted to end life.

Degree of pre-meditation

9 out of 13 (69.23%) cases contemplated suicide for more than 3hours prior to attempt.2 out of 13 (15.38%) cases contemplated suicide for 3 hours or less prior to attempt. Another 2 out of 13 (15.38%) had no pre-meditation and the attempt was impulsive.

Reaction to attempt

9 cases out of 13 (69.23%) were ashamed of the attempt and felt sorry for the attempt. 2 cases (15.38%) regretted regarding the failure of attempt and two others (15.38%) patients accepted both attempt and failure.

Depressive symptoms

All 30 cases were questioned about how they have been feeling over the last 2 weeks prior to attempt to assess the prevalence of depression among them.

Table 4: ICD -10 major depressive disorder inventory.

Severity of depression	No.	Percentage
Severe	5	17
Moderate	1	3
No	24	80

20% had moderate or severe depression.

In that, 5 out of 30 (16.66%) had severe depression, 1 out of 30 (3.33%) had moderate depression and 24 out of 30

(80%) had no depression, according to MDI.ICD-10 scale (Table 4).

Though this 24 cases had no mild/moderate/major/severe depression, for more than half the time in the last 2 weeks prior to suicide attempt, 10 of these cases (41.66%) felt low in spirits/sad, 4 cases (16.66%) lost interest in daily activities, 8 cases (33.33%) felt less self-confident, 4 cases (16.66%) felt lacking in energy and strength, 1 case (4.16%) had a bad conscience or feelings of guilt, 6 cases (25%) felt that life wasn't worth living, 5 cases (20.83%) had difficulty in concentrating, 6 cases (25%) felt very restless, 9 cases (37.5%) had trouble sleeping at night and 7 cases (29.16%) suffered from reduced appetite (Table 5).

Table 5: Subclinical depressive symptoms.

Depressive symptom	Percentage
Low mood	42
Lost interest	17
Guilt	4
Worthlessness	25
Difficulty concentrating	21
Restlessness	25
Sleep disturbances	38
Reduced appetite	29

Many persons had subclinical depressive symptoms. Total percentage is more than 100 because some had more than one symptoms.

DISCUSSION

The male female ratio in suicide is nearly 1:1 contrary to western studies. But Indian records show that the male: female ratio is almost equal.⁶ In a study among students, males outnumbered females as in current study.⁷

Regarding the methods used in suicide attempts, the most common method of suicide attempt is insecticide poisoning. This finding is similar to other Indian studies.⁶ Nandi et al studied the association between easy availability of pesticides and suicide attempts and concluded that it was the motive that determines the suicide attempt and not the easy availability of pesticides.¹⁷

Majority of the suicide attempters (63%) were less than 30 years of age. This is similar to other Indian studies. Rao, in a study had found that the vulnerable age is from 15 to 25 years.⁴ This finding highlights the importance of suicide prevention strategies as more number of lives lost in the most productive period of the lifetime.

There was a previous suicide attempt in three (10%) persons. All of them had low mood and loss of interest. This highlights the importance of proper suicide prevention counselling specifically to monitor early symptoms of depression and treatment. Regarding the

suicide intent, of the 30 cases, 13 (43.33%) showed high intent, 14 cases (46.66%) showed medium intent and 3 cases (10%) showed low intent. Suicidal intention is strongly associated with suicide attempts. Many studies have found that people who exhibit suicide intention are also likely to be depressed and attempt suicide.¹³⁻¹⁶

Out of the 13 cases with severe intent 10 (76.92%) were saying that it was a serious attempt to end life and 9 out of 13 (69.23%) cases contemplated suicide for more than 3 hours prior to attempt. Hence, high vigilance must be exercised in people who express suicide intention.

Regarding depression 20 % had moderate or severe depression as per ICD-10 major depressive disorder inventory. Depression is commonly associated with suicide attempts. It is commonly under diagnosed. Persons with depression also have high suicide intent. Even in the remaining 24 people who do not fulfil the criteria for depression, many had either one or two symptoms of depression. Hence the need to screen for depression among suicide attempters is essential.^{10-12,18}

CONCLUSION

Suicide is a leading cause of mortality among young individuals. Many of them have clinical depression or subclinical symptoms of depression. People expressing suicide intent should be screened for underlying depression. Proper identification, follow up and treatment of depression among suicide attempters are highly essential for successful reduction in suicide mortality.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. World health statistics 2016: Monitoring health for the SDGs: World Health Organization 2016 World Health Organization. Available at http://apps.who.int/gho/data/node.main.MHSUICID_E?lang=en retrieved on 26 Aug 2016.
2. Sudak KH. Suicide. In: Sadock BJ, Sadock VA, Pedro Ruiz MD, eds. Kaplan and Sadock's Comprehensive Textbook of Psychiatry, 9th ed. Lippincott Williams and Wilkins publications; 2009:2717-32.
3. Vijayakumar L. Suicide in India in Suicide in Asia. In: Yip PS, editor. Hongkong Univ press; 2008:121-131.
4. Rao VA. Attempted suicide. Indian J Psychiatr. 1965;7:253-64.
5. Vijayakumar L. Indian research on suicide. In: T. S. Sathyanaratana Rao, Ed. Indian Research in Psychiatry: A journey of six decades. Indian Psychiatry Society publication; 2010:614-25.
6. National Crime Records Bureau. Suicides in India; 2007. Available at <http://ncrb.nic.in/StatPublications/ADSI/ADSI2007/Suicides07.pdf>. Accessed on 8 July 2017.
7. Rao VA. Attempted suicide and suicide among students in Madurai. Indian J Psychiatr. 1972;14:389-97.
8. Badrinarayana A. Suicide attempt in Gulbarga. Indian J Psychiatr. 1977;19:69-79.
9. Srivastava MK, Sahoo RN, Ghotekar LH, Dutta S, Danabalan M, Dutta TK, et al. Risk factors associated with attempted suicide. Indian J Psychiatr. 2004;46:33-8.
10. Bagadia VN, Ghadial HN, Shah LP. Unemployment and attempted suicide. Indian J Psychiatr. 1976;18:131-9.
11. Jain V, Singh H, Gupta SC, Kumar S. A study of hopelessness, suicidal intent and depression in cases of attempted suicide. 1999;41:122-30.
12. Badrinarayana A. A study of suicidal risk factors in depressive illness. Indian J Psychiatr. 1980;22:81-3.
13. Srivatsava AS, Kumar R. Suicidal ideations and attempts in patients with major depression: socio demographic and clinical variables. Indian J Psychiatr. 2005;47:225-8.
14. Latha KS, Bhat SM. Suicidal behavior among terminally ill cancer patients'. Indian J Psychiatr. 2005;45:79-83.
15. Rao AV, Nammalvar N. Death orientation in depression. Indian J Psychiatr. 1979;22:199-205.
16. Saxena S, Nepal MK, Mohan D. DSM III Axis diagnoses of Indian psychiatric patients with somatic complaints. AM J Psychiatr. 1988;145:1023-4.
17. Nandi DM, Mukherjee SP, Banerjee G, Ghosh A, Boral CG, Chowdry A, et al. Is suicide preventable by restricting the availability of lethal agents? A rural survey of West Bengal. Indian J Psychiatr. 1979;21:251-5.
18. Vijayakumar L. Suicide and its prevention: The urgent need in India. Indian J Psychiatr. 2007;49:81-4.

Cite this article as: Ramanujam G, Rahuman A, Mahalakshmi R. Prevalence of depression among people who attempt suicide. Int J Res Med Sci 2017;5:4108-11.