ORIGINAL ARTICLE

A study of intent of suicide in people with major depression

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Abstract

Background: Depression is most important underlying diagnosis among the cases of suicide. There is dearth of information regarding suicidal intent among people of depression and its relationship with hopelessness among Indians. **Aims & Objective**: To describe the intent of suicide in people with depression among the north Indian population. **Material & Methods:** This was a cross-sectional study at department of psychiatry, King George's Medical University, Lucknow. Subjects between age group of 18-60 years with major depressive disorder as per DSM-IV TR criteria were screened and included in the study. Each subject was assessed using Hamilton Depression Rating Scale (HRS), Beck's Hopelessness Scale (BHS) and Suicide Intent Questionnaire (SIQ). **Results:** Suicidal intent was observed among 68.1% (n=49) of sample (n=72). There was no significant ($p>0.05$) association of suicidal intent with socio-demographic factors except domicile status. Suicidal intent was common among people with moderate to severe depression and those with hopelessness. The hopelessness was present among 70.8% of subjects. **Conclusion:** Suicidal intent is common among people with major depression. The authors emphasize the need of exploration of suicidal intent in people with depression.

Keywords

Suicidality; Suicidal intent; Depression; Hopelessness; Hamilton Rating Scale

Introduction

Suicide is a major worldwide public health problem. Nearly one million lives are lost each year due to suicide, and between 3%–5% of adults make at least one suicide attempt at some point in their life (1,2,3). About 20% of the total suicide in the world is constituted by Indians. Poisoning (36.6%), hanging (32.1%), and self-immolation (7.9%) are the commonest way of suicide in Indian populations (4,5).

Past three decades has witnessed rapid rise in the rate of suicide by 43% in India from 1975 to 2005.The consequence is loss of more than one lakh lives every year due to suicide. There is a wide variation in suicide rates within the country. The southern states of Kerala, Karnataka, Andhra Pradesh and Tamil Nadu have a suicide rate of >15 per 1,00,000 population while in the Northern States of Punjab, Uttar Pradesh, Bihar and Jammu and Kashmir, the suicide rate is <3 per 100,000 population. Higher literacy, a better reporting system, lower external

aggression, higher socioeconomic status and higher expectations are the possible explanations for the higher suicide rates in the southern states (6).

Suicide is the second leading cause of death in the age group of 10-24 years, and is one of the three leading causes of death among people aged 15–44 years in many countries; these figures do not include the suicide attempts, which are up to 20 times more frequent than completed suicide (7). There is dearth of information regarding suicidality from India, which could be expected to be more common than suicide attempts. The majority of the suicides (37.8%) in India are by those below the age of 30 years. The fact that 71% of suicides in India are by persons below the age of 44 years imposes a huge social, emotional and economic burden on society (8).

About 90% of individuals who die by suicide satisfy the criteria for one or more psychiatric disorders (9). More than two-thirds of suicide completers and suicide attempters have (mostly untreated) major or bipolar depressive episodes at the time of the suicidal act (10).

Hopelessness is a concept that may contribute to suicide, independent of depression. One multivariate analysis found hopelessness to be 1.3 times more important than depression in explaining suicidal ideation (11). It may mediate the relationships between interpersonal losses, loneliness, low self-esteem, and suicide. Those in whom hopelessness persists when depression has remitted continue to be at high risk for suicide (12).

Hence, identification of suicidal intent/suicidality is of great importance from the point of view of implementing the precautionary measures. In patients at risk of suicide, regardless of whether the patient has developed a suicide plan, the patient's level of suicidal intent should be explored. Suicidal intent reflects the intensity of a patient's wish to die and can be assessed by determining the patient's motivation for suicide as well as the seriousness and extent of his or her aim to die, including any associated behaviors or planning for suicide (13).

Aims & Objective

To explore the intent of suicide in cases of depression among the north Indian population.

Material & Methods

Study Design and Area: This was a cross-sectional study conducted in a tertiary care teaching hospital.

Sample Size: There was no similar study estimating suicidal intent in this geographical area to calculate sample size. Considering the feasibility and limitation of manpower as the study was a dissertation of one-year duration during MD psychiatry, it was decided by department's board of studies and ethical committee to recruit approximately two third of the maximum recruitable subjects (i.e. two per weeks during a period of one-year duration). In this way, the final sample consisted of 72 subjects with major depression.

Study Tool: The subjects were evaluated on Hamilton Rating Scale consisting of 24 items (14). The severity of depression was classified on the basis of HAM-D scoring mild (score between 8-17), moderate (score between 18-25) and severe (score >25). Suicide Intent Questionnaire (SIQ) was applied for evaluation of suicide intent (15). SIQ has maximum score of 20. A score of ≥5 on SIQ scale indicates presence of suicidal intent. The severity of suicidal intent is classified as mild (SIQ score between 5-10), moderate (score between 11-15) and severe (score between 16-20). Hopelessness was measured by applying Beck's hopelessness scale (16). A score of ≥9 indicated presence of hopelessness. The BHS is a 20-item scale for measuring the cognitive component of the syndrome of depression. This scale assesses three major aspects of hopelessness: feelings about the future, loss of motivation, and expectations.

Consent: The written informed consent was taken from each subject.

Ethical Clearance: The study was approved by the Ethical Committee of the Institute.

Inclusion Criteria: The first two subjects aged between 18-60 years attending outdoor of department of Psychiatry on a specified day of the week, with a diagnosis of major depression as per DSM-IV-TR diagnostic criteria were recruited in the study.

Exclusion Criteria: The subjects with any major physical illness, comorbid major psychiatric disorders and received ECT/Psychotropic medication in the current episode were excluded from the study.

Data Analysis: The results were presented in percentages. The Chi-square test was used for comparison. The p-value <0.05 was considered significant. All the analysis was carried out using SPSS 16.0 version (Chicago, Inc., USA).

Results

Suicidal intent was present among 68.1% of subjects. It was of mild severity among 43.1% and of moderate severity in 25% of the subjects. Table-1 shows the distribution and association of demographic profile with suicidal intent. Most of the subjects were between ages of 26-35 years (63.9%) and were males (56.9%). Majority of subjects were Hindu (86.1%), married (86.1%) from rural area (73.6%). Approximately, half of sample (44.4%) belonged to lower middle class.

The suicidal intent was not affected by sociodemographic factors (Table 1) except urban living status. The suicidal intent was present among more subjects of urban (94.7%) domicile than the rural (58.5%).

About half of subjects (44.4%) were moderately depressed on HAM-D scoring, and but hopelessness as per BHS was present among 70.8% of subjects.

On further analysis, the suicidal intent was higher among subjects with moderate (93.8%) depression than subjects with severe (84.2%) and mild (14.3%) depression. The suicidal intent was also higher among those with hopelessness as per BHS. There was significant (p=0.0001) association of suicidal intent with HAM-D severity and hopelessness status (Table-2).

Discussion

This study evaluated the presence of suicidal intent among people with depression and its relationship with severity of depression and hopelessness. Suicidal intent was present in 49% of the subjects with major depression. This is similar to study reporting that 53.8% of subjects of depression verbalized suicidality (17).

The present study demonstrated slight male preponderance (70.7%) in cases for suicidal intent. This is in agreement with the previous studies (18,19) where male predilection for suicides was observed but in contradiction with the studies (20,21) where females were observed to attempt more number of suicides. Most of the cases with suicidal intent were in age group of 26-35 years as opposed to other studies from India showing vulnerable age groups of 15-25 years. The difference might be due to different socio-demographic profile of the cases in this study.

We observed insignificant (p>0.05) association of suicidal intent with sociodemographic variables e.g. age, sex, religion, marital status, education, occupation and SES except domicile. This indicated that these factors have nothing to do with intention of suicide. A similar finding has been reported (21). Suicidal intents were higher in urban subjects which was in accordance with another study (22).

The intent of suicide is significantly more common among the cases with presence of hopelessness. This is line with previous studies reporting that hopelessness is more common among individuals displaying suicidal ideation (23,24), suicidal attempt and completed suicide (25,26). This indirectly denotes that hopelessness could be considered as an indicator of suicidal intent independent of presence of depression. This emphasizes the need of assessment of hopelessness in people with depression and at risk of suicide.

Suicidal intent was also significantly more common among the patient with moderate to severe stage of depression than mild stage. This was consistent with previous study (27,28). This is an important result emphasizing the need of treatment of severe depression for prevention of suicide. This also indicates that suicidal intent rather than overt attempt indicates the severity of depression. Asian people are generally of reserved nature and usually conceal their feelings and negative emotions. Hence, in every person with depression, the suicidal intent should be explored which is present in about half of the study sample. To the best of our knowledge, there is no study from India exploring the relationship of suicidal intent with severity of depression. Contrary to our finding, a study exploring suicidality among elderly patients with depression using BHS and Beck's suicide intent scale revealed that severity of depression did not significantly influence the presence of suicidal thinking (17)

Conclusion

Suicidal intent is common among people with moderate to severe depression, and is indicated by presence of hopelessness. Sociodemographic variables are not associated with presence of suicidal intent except urban domicile.

Recommendation

The authors emphasize the need of exploration of suicidal intent in people with major depression for early and timely application of preventive measures

Authors Contribution

All the authors had made substantial contributions to conception, design, data collection, analysis and

interpretation of data; drafting the article, revising it critically for important intellectual content; and final approval of the version to be published.

References

1. Kessler RC, Borges G, Walters EE. Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. Arch Gen Psychiatry. 1999 Jul;56(7):617-26. PubMed PMID: 10401507.[PubMed]
2. Weissman MM, Bland RC, Canino GJ, Greenwald S, Hwu HG, Joyce PR, Karam EG, Lee CK, Lellouch J, Lepine JP, Newman SC, Rubio-Stipec M, Wells JE, Wickramaratne PJ, Wittchen HU, Yeh EK. Prevalence of suicide ideation and suicide attempts in nine countries. Psychol Med. 1999 Jan;29(1):9-17. PubMed PMID: 10077289.[PubMed]
3. Szádóczky E, Vitrai J, Rihmer Z, Füredi J. Suicide attempts in the Hungarian adult population. Their relation with DIS/DSM-III-R affective and anxiety disorders. Eur Psychiatry. 2000 Sep;15(6):343-7. PubMed PMID: 11004728.[PubMed]
4. Government of India. Accidental deaths and suicides in India. National Crime Records Bureau. Ministry of Home Affairs: Government of India; 2005.
5. Kumar CT, Chandrasekaran R. A study of psychosocial and clinical factors associated with adolescent suicide attempts. Indian J Psychiatry. 2000 Jul;42(3):237-42. PubMed PMID: 21407949; PubMed Central PMCID: PMC2958344.[PubMed]
6. Vijayakumar L. Suicide in India in Suicide in Asia. Yip PS, editor. Hong Kong Univ Press 2008:121-31.
7. Kumar Sachil, VermaAnoop K, Bhattacharya Sandeep, RathoreShiuli. Trends in rates and methods of suicide in India. Egyptian Journal of Forensic Sciences 2013;3(3):75-80.
8. Vijayakumar L. Indian research on suicide. Indian J Psychiatry. 2010 Jan;52(Suppl 1):S291-6. doi: 10.4103/0019-5545.69255. PubMed PMID: 21836697; PubMed Central PMCID: PMC3146189.[PubMed]
9. Henriksson MM, Aro HM, Marttunen MJ, Heikkinen ME, Isometsä ET, Kuoppasalmi KI, Lönnqvist JK. Mental disorders and comorbidity in suicide. Am J Psychiatry. 1993 Jun;150(6):935-40. PubMed PMID: 8494072.[PubMed]
10. Coryell W, Young EA. Clinical predictors of suicide in primary major depressive disorder. J Clin Psychiatry. 2005 Apr;66(4):412-7. PubMed PMID: 15816781.[PubMed]
11. Beck AT, Steer RA, Beck JS, Newman CF. Hopelessness, depression, suicidal ideation, and clinical diagnosis of depression. Suicide Life Threat Behav. 1993 Summer;23(2):139-45. PubMed PMID: 8342213.[PubMed]
12. nstitute of Medicine (US) Committee on Pathophysiology and Prevention of Adolescent and Adult Suicide; Goldsmith SK, Pellmar TC, Kleinman AM, Bunney WE, editors. Reducing Suicide: A National Imperative. Washington (DC): National Academies Press (US); 2002. PubMed PMID: 25057611[PubMed]
13. Jacobs DG, Baldessarini RJ, Conwell Y, Fawcett FA, Horton L, Meltzer H, Pfeffer CR, Simon I. Practice guideline for the assessment and treatment of patients with suicidal behaviors. 2010. http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/suicide.pdf
14. Williams JB. Standardizing the Hamilton Depression Rating Scale: past, present, and future. Eur Arch Psychiatry Clin Neurosci. 2001;251 Suppl 2:II6-12. PubMed PMID: 11824839.[PubMed]
15. Reynolds WM. Suicidal Ideation Questionnaire (SIQ). Odessa, Fl: Psychological Assessment Resources; 1987.
16. Beck AT. Beck Hopelessness Scale. The Psychological Corporation 1998.
17. Tan LL, Wong HB. Severity of depression and suicidal ideations among elderly people in Singapore. Int Psychogeriatr. 2008 Apr;20(2):338-46. Epub 2007 Jul 26. PubMed PMID: 17651526.[PubMed]
18. Rao VA. Attempted suicide. Indian J Psychiatry 1965;7:253-64.
19. Badrinarayana A. Suicidal attempt in Gulbharga. Indian J Psychiatry 1977;19:69-70.
20. Lal N, Sethi BB. Demographic and socio demographic variables in attempted suicide by poisoning. Indian J Psychiatry 1975;17:100-7.
21. Parikh N, Sharma P, Gandhi H, Banwari G. A study on attempted suicide, its clinical and socio-demographic variables in a tertiary level hospital of Ahmedabad.Int J Cur Res Rev 2014;06(10):57-63.
22. Ramdurg S, Goyal S, Goyal P, Sagar R, Sharan P. Sociodemographic profile, clinical factors, and mode of attempt in suicide attempters in consultation liaison psychiatry in a tertiary care center. Ind Psychiatry J. 2011 Jan;20(1):11-6. doi: 10.4103/0972-6748.98408. PubMed PMID: 22969174; PubMed Central PMCID: PMC3425239.[PubMed].
23. Haatainen K, Tanskanen A, Kylmä J, Honkalampi K, Koivumaa-Honkanen H, Hintikka J, Viinamäki H. Factors associated with hopelessness: a population study. Int J Soc Psychiatry. 2004 Jun;50(2):142-52. PubMed PMID: 15293431.[PubMed]
24. Keilp JG, Grunebaum MF, Gorlyn M, LeBlanc S, Burke AK, Galfalvy H, Oquendo MA, Mann JJ. Suicidal ideation and the subjective aspects of depression. J Affect Disord. 2012 Sep;140(1):75-81. doi: 10.1016/j.jad.2012.01.045. Epub 2012 Mar 9. PubMed PMID: 22406338; PubMed Central PMCID: PMC3375058.[PubMed]
25. Holma KM, Melartin TK, Haukka J, Holma IA, Sokero TP, Isometsä ET. Incidence and predictors of suicide attempts in DSM-IV major depressive disorder: a five-year prospective study. Am J Psychiatry. 2010 Jul;167(7):801-8. doi: 10.1176/appi.ajp.2010.09050627. Epub 2010 May 17. PubMed PMID: 20478879.[Pubmed]
26. Sinclair JM, Harriss L, Baldwin DS, King EA. Suicide in depressive disorders: a retrospective case-control study of 127 suicides. J Affect Disord. 2005 Jul;87(1):107-13. PubMed PMID: 15913784.[PubMed]
27. Ando S, Kasai K, Matamura M, Hasegawa Y, Hirakawa H, Asukai N. Psychosocial factors associated with suicidal ideation in clinical patients with depression. J Affect Disord. 2013 Nov;151(2):561-5. doi: 10.1016/j.jad.2013.06.047. Epub 2013 Jul 19. PubMed PMID: 23876193.[PubMed]
28. Xiao BBX, Zhang H, Gao J, Tao M, Niu H, Wang Y et al. A comparison of the clinical characteristics of women with recurrent major depression with and without suicidal symptomatology. Psychological Medicine 2012;42:2591–2598

Tables

TABLE 1 DISTRIBUTION AND ASSOCIATION OF SOCIODEMOGRAPHIC PROFILE WITH SUICIDAL INTENT

Variables	Subjects	Suicidal intent (n, %)		p-value1
	n (%)	Present	Absent	
Age in years				
18-25	6 (8.3)	4 (66.7)	2 (33.3)	0.47
26-35	46 (63.9)	31 (67.4)	15 (32.6)	
36-45	12 (16.7)	10 (83.3)	2 (16.7)	
>45	8 (11.1)	4 (50.0)	4 (50.0)	
Sex				
Male	41 (56.9)	29 (70.7)	12 (29.3)	0.57
Female	31 (43.1)	20 (64.5)	11 (35.5)	
Religion				
Hindu	62 (86.1)	43 (69.4)	19 (30.6)	0.10
Muslim	7 (9.7)	6 (85.7)	2 (28.6)	
Sikh	3 (4.2)	0 (0.0)	2 (66.7)	
Domicile				
Urban	19 (26.4)	18 (94.7)	1 (5.3)	0.004*
Rural	53 (73.6)	31 (58.5)	22 (41.5)	
Marital status				
Married	62 (86.1)	41 (66.1)	21 (33.9)	0.38
Unmarried	10 (13.9)	8 (80.0)	2 (20.0)	
Education				
Illiterate	21 (29.2)	17 (81.0)	4 (19.0)	0.29
Up to V	12 (16.7)	6 (50.0)	6 (50.0)	
VI-IX	15 (20.8)	11 (73.3)	4 (26.7)	
X-XII	13 (18.1)	7 (53.8)	6 (46.2)	
XII+	11(15.3)	8 (72.7)	3 (27.3)	
Occupation				
Student	5 (6.9)	3 (60.0)	2 (40.0)	0.39
Housewife	19 (26.4)	14 (73.7)	5 (26.3)	
Farmer	9 (12.5)	7 (77.8)	2 (22.2)	
Businessman	14 (19.4)	10 (71.4)	4 (28.6)	
Professional	13 (18.1)	10 (76.9)	3 (23.1)	
Unemployed	12 (16.7)	5 (41.7)	7 (58.3)	
Socio-economic status				
Poor	26 (36.1)	15 (57.7)	11 (42.3)	0.33
Lower middle	32 (44.4)	23 (71.9)	9 (28.1)	
Upper middle	14 (19.4)	11 (78.6)	3 (21.4)	
*1Chi-square test, *Significant*				

TABLE 2 COMPARISON OF SEVERITY OF DEPRESSION (HAM-D) AND BECK'S HOPELESSNESS SCALE WITH SUICIDAL INTENT

Variable	Subjects	Suicidal intent (n, %)		p-value1
	n (%)	Present	Absent	
HAM-D				
Mild	21 (29.2)	3 (14.3)	18 (85.7)	x2=39.93
Moderate	32 (44.4)	30 (93.8)	2 (6.3)	df=2
Severe	19 (26.4)	16 (84.2)	3 (15.8)	p< 0.0001*
Beck's hopelessness scale				
Present	51 (70.8)	48 (94.1)	3 (5.9)	x2=54.63
Absent	21 (29.2)	1 (4.8)	20 (95.2)	df=2
				p<0.0001*
*1Chi-square test, *Significant*				