Original Research

Association of reasons for living inventory scoreswith suicidal acts among patients with major depression

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Abstract

Background: Suicide is among the top 3 causes of death among youth worldwide.

Objective: This study was aimed to find out the association of reasons for living, among patients with major depression at a tertiary care hospital.

Materials and Methods: Total 70 subjects were recruited from patients coming to psychiatry OPD of GMERS medical college hospital, Valsad. Subjects were aged between 18 and 80 years who met DSM-IV-TR criteria for current major depressive episode and were free of severe, unstable medical and neurologic disorders. Analysis of data was done by using Epi-info version 7.

Result: The total score for reasons for living of the depressed patients who had not committed suicide was significantly higher than people who had committed suicide(p value 0.01). The mean of the total score on the reasons for living inventory for the suicide attempters was 160.95 and mean for suicide non-attempters 180.1.

Conclusion: Reasons for living scores were found lower among suicide attempters compared to non-attempters among depressed patients.

Key words: Suicide, depression,reasons for living scale

Introduction

Suicide is among the top 3 causes of death among youth worldwide. According to the World Health Organization (WHO), every year, almost one million people die from suicide and 20 times more people attempt suicide; a global mortality rate of 16 per 100,000, or one death every 40 seconds and one attempt every 3 seconds, on average. Suicide worldwide was estimated to represent 1.8% of the total global burden of disease in 1998; in 2020, this figure is projected to be 2.4% in countries with market and former socialist economies. According to the most recent WHO data that was available as of 2011,[1] the rates of suicide range from 0.7/100,000 in the Maldives to 63.3/100,000 in Belarus. India ranks 43 in descending order of rates of suicide with a rate of 10.6/100,000 reported in 2009 (WHO suicide rates).[1] The rates of suicide have greatly increased among youth, and youth are now the group at highest risk in one-third of the developed and developing countries. The emerging phenomenon of cyber-suicide in the internet era is a further cause for concern;[2,3] also because the use of new methods of suicide are associated with epidemic increase in overall suicide rates.[4] During 2010 the estimated number of suicide was 187,000, and until date it's on rise.[5,6] Therefore, if we look at the situation in India, we find that, the country is heavily loaded with quite high number of, suicide i.e., 1,35,445 people committed suicide in 2012. The National Crime Records Bureau (NCRB) of India reported that in the state of West Bengal, 79,773 men and 40,715 women had taken the extremestep of self-killing.[7] Suicide is nevertheless a private and personal

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act and a wide disparity exists in the rates of suicide across different countries. A greater understanding of region-specific factors related to suicide would enable prevention strategies to be more culturally sensitive. This study was aimed to find out reasons for living among patients with major depression at a tertiary care hospital.

Materials and Methods

This cross sectional study included 70 subjectsfrom patients coming to psychiatry OPD ofGMERS medical college and hospital, Valsad. Sample size was calculated using formula: $4pq/l^2$ considering 18.5% prevalence of depression among population[8] and 10% of absolute precision. The sample size came to 61 patients. 10% samples were added to cover any losses during study and finally 70 patients satisfying the inclusion criteria were included in the study. Subjects were aged between 18 and 80 years who met DSM-IV-TR criteria for current major depressive episode and were free of severe, unstable medical and neurologic disorders. Approval from institutional ethical committee was taken before conducting the study. Written consents were obtained from all the participants.

All the new cases coming to psychiatric OPD were clinically assessed for depression, and the diagnosis of a current major depressive episode was made based on DSM-IV-TR.[9] Follow up cases who were diagnosed of having major depression and were already under treatment for the same, were also included in the study. The cases were divided into 2 groups, suicide attempters and suicide non-attempters. Suicide attempt within previous one year of the study wasconsidered for division of groups. Demographic characteristics of both the groups were compared, chi-square and t test applied as appropriate. All the patients were included in the study.

Reasons for living inventory[10]: The Reasons for living inventory is a self-report instrument that measures beliefs that may contribute to the inhibition of suicidal behavior. It is composed of 6 factors: survival and coping beliefs, responsibility to family, child related concerns, fear of suicide, fear of social disapproval and moral objections to suicide. The scale consists of statements which are rated by the individuals on a 1–6 spectrum (1 = not at all important and 6 extremely important). In the present study, inventory was applied by structures interview method. The total score on the reasons living inventory was compared with the scores for each individual factors. Analysis of data was done by using Epi-info version 7.

Results

Out of the total 24 patients, who had attempted suicide, 12 were male and 12 were female and out of the 46 patients, who did not attempt suicide, 24 were male patients and 22 were female patients.

As shown in Table 1, the total score for reasons for living of the depressed patients who had not committed suicide was significantly higher than people who had committed suicide. The mean of the total score on the reasons for living inventory for the suicide attempters was 160.95 and mean for suicide non-attempters 180.1.The mean scores for suicide non-attempters were 100.7 and 15.4 for survival and coping belief and fear of suicide, respectively. In case of suicide attempters, the scores for survival and coping belief and fear of suicide were found out to be 80.7 and 18.4, respectively.

Discussion

The mean age in years among suicide attempters was 34.95 and mean age among suicide non-attempters was 36.76. The total score for reasons for living of the depressed patients who had not committed suicide was significantly higher than people who had committed suicide. This is very much in line with the studies of Malone et al.[11] The mean of the total score on the reasons for living inventory for the suicide attempters was 160.95 and mean for suicide non-attempters 180.1.

Table 1: Reasons for living amongpatients with major depression

Measures from reasons for living inventory	Suicide attempters Mean ± SD (n=24)	Suicide non-attempters Mean ± SD (n=46)	T test value	Df	P value
Total score	160.95 ± 39.3	180 ± 21.5	2.64	68	0.01
Scores for factors				68	
Responsibility towards family	25.16 ± 8.3	27.23 ± 6.94	1.1	68	0.275
Fear of social disapproval	10.04 ± 4.5	9.4 ± 2.9	0.73	68	0.46
Moral objections	16.04 ± 5.11	15.4 ± 3.3	0.63	68	0.53
Survival and coping belief	80.7 ± 22	100.7 ± 13.5	4.7	68	0.0001
Fear of suicide	18.4 ± 5.6	15.4 ± 6.4	1.94	68	0.05
Child related concern	10.5 ± 5.9	11.9 ± 4.6	1.09	68	0.27

Depressed patients who had not attempted suicide had greater survival and coping beliefs which was in line with Malone et al. Similarly, depressed patients who had not committed suicide had significantly higher score for fear of suicide. The mean scores for suicide non-attempters were 100.7 and 15.4 for survival and coping belief and fear of suicide, respectively. Malone et al.[11] in their study had mean scores of 92.3 and 24.5 for survival and coping belief and fear of suicide, respectively in case of non-attempters. In case of suicide attempters the scores for survival and coping belief and fear of suicide was found out to be 80.7 and 18.4, respectively in the present study and 70.1 and 21.3, respectively in the study by Malone et al.[11] As opposed to Malone et al, in the present study, surprisingly, the scores for responsibility towards family, fear of social disapproval, moral objections and child related concerns were not statistically significant.

The individual scores for factors on reasons for living inventory differed from the study conducted by Malone et al.[11] It should be kept in mind that the study by Malone et al was on western subjects. Reasons for living, like hopelessness, may reflect a cultural or environmental component in the suicide threshold and may contribute to variation in suicide rates among different cultures (Malone et al.[11]).

The reasons for living scale hasbeen divided into 6 groups. Responsibility towards family is one such group. Both attempters and suicide non-attempters demonstrated that they felt responsible towards their family and thus this factor did not differentiate between the 2 groups. Though both groups had strong family ties and both groups felt that they do not want to hurt their family, some of the depressed patients attempted suicide. Similarly, fear of social disapproval did not differentiate the 2 groups. What people would think of them, in response to this statement both suicide attempters and non-attempters responded similarly by stating that this statement to them is not at all important to somewhat important. Surprisingly, both groups felt that it was morally wrong to attempt or commit suicide and therefore this factor was not able distinguish between the groups.

Survival and coping belief was able to differentiate between the groups. On this factor they differed significantly. Most statements regarding survival and coping beliefs were answered as either quite important or extremely important, by the non-attempters. They said that, “I believe I can learn to adjust or cope with my problems”. They also said that, “I have desire to live” and “I care enough about myself to live”. Fear of suicide also was a differentiating factor between the 2 groups. The suicide non-attempters said that “I am afraid that my method of killing myself would fail” and “I am afraid of the unknown” as extremely important.

Whereas, religious persuasion did not differentiate the patients with and without suicide attempts, the scores for fear of suicide and survival andcoping belief differed strongly. These seem to protect against higher lethality suicidal acts among the suicide attempters.

Conclusion

Reasons for living scores were found lower among suicide attempters compared to non-attempters among depressed patients. This difference was found statistically significant. It can be used to predict suicidal tendency among major depression patients and prevent avoidable mortalities among them.

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