



A Study to Assess Suicidal Behaviour Among Various Psychiatric Disorders Lesions

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ABSTRACT

To assess the prevalence of suicidal behaviour in patients suffering from various psychiatric disorders. To correlate the suicidal behaviour with the socio demographic factors. To compare the suicidal ideation and suicidal intent between common mental disorders and severe mental illness. To compare the suicidal ideation and suicidal intent between common mental disorders and alcohol use disorder.

Key words: Behaviours, Demographic factors, Severe mental illness, Psychiatric disorders

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INTRODUCTION

Suicide (Latin suicidium, from sui caedere, "to kill oneself") is the act of intentionally causing one's own death. It is a global public health issue that is a devastating result of a wide range of factors including genetic, socio-cultural, economic, and psychological causes. Suicidal activity and suicidality can be described as a progression of suicidal ideation to attempted suicide and completed suicide [1-3]. World health organization reported that suicide rated for 1.4% of all deaths throughout the world, making it the 18th leading cause of death in 2016. It predicts that nearly 1.53 million people will be killed by suicide by 2020 and for every person who die by suicide, 10 to 20 times more people may attempt suicide globally. Out of these quite a number will have mental health issues [4].

The stigma of mental illness is a predominant barrier to access health care and arouses negative attitudes and feelings such as shame, disgrace, fear, disgust, hate which results in discrimination and rejection of the individual

thus delaying the care of mentally ill [5]. The existence of a psychiatric disorder is invariably reported to be the strongest predictor of suicidal behaviour. It is also stated that 10% of people with mental health issues kill themselves and ninety percent of those who kill themselves will have a psychiatric morbidity. At the same time, it must be noted that only 2% of those who have psychiatric illness commit suicide. Moreover, presence of alcohol dependence greatly increases the risk of suicide with or without a psychological illness. Hence the relationship between suicide, psychiatric illness and alcohol dependence is complex [6]. Among psychiatric disorders, major depressive disorder is the strongest predictors of suicide and suicidal behaviours. Other psychiatric illness in the background of suicide includes schizophrenia, bipolar disorders, anxiety disorders and substance use disorders. Suicidal behaviours amidst individuals with mental illness are one of the commonest psychiatric emergencies that demands a major public health concern by research and mental health task forces [7].

Suicidal risk is an alarming concern in India and as it is a preventable cause of death, identification of patients with mental disorders with suicidal ideation and suicidal intent would be helpful in implementing suicide preventive strategies.

Among those who are mentally ill some may have a higher risk of attempting or committing suicide. It is hence important to identify those who are at a higher risk [8]. One of the methods is to identify the suicidal behaviours which points to the risk. This study was done to find out the suicidal ideation and suicidal intent among persons suffering from various mental illness.

MATERIALS AND METHODS

Setting of the study

This study was done in the outpatient department of Psychiatry, Sree Balaji Medical College & Hospital, Chennai.

Sample

120 persons suffering from psychiatric disorder along with their relatives were recruited, out of which 40 were suffering from common mental disorders, 40 were suffering from severe mental illness and 40 were suffering from alcohol use disorder.

Inclusion criteria

- ✓ Patients aged 18 to 60 years.
- ✓ Common mental disorders–Depressive disorders (Major depressive disorder (mild, moderate/Dysthymia), Anxiety disorders (Generalized anxiety disorder, Panic disorder, phobias, Social anxiety disorder, OCD, Post-traumatic stress disorder) and stress related disorders (adjustment disorder, somatoform disorder) as per ICD10 diagnostic criteria.
- ✓ Severe mental illness includes severe depression, bipolar affective disorder, Schizophrenia, and other Psychotic disorders as per ICD 10 diagnostic criteria.
- ✓ Clinically stable for an interview.
- ✓ Patients who gave the consent for the study.

Exclusion criteria

- ✓ Patient less than 18 years and more than 60 years of age.
- ✓ Patients uncooperative for the interview.
- ✓ Patients having dual diagnosis of psychiatric disorder.
- ✓ Patients suffering from personality disorders.

Methodology of the study

The patients who fulfilled the inclusion and exclusion criteria and diagnosed to

have a psychiatric disorder (Depressive disorder, Neurotic & stress related disorders, Schizophrenia, Bipolar affective disorder, Delusional Disorder and other psychotic disorders and Alcohol use disorder) were included in the study along with their relative after obtaining an informed consent.

Statistical methods

Descriptive analysis: Descriptive analysis was carried out by mean and standard deviation for quantitative variables, frequency and proportion for categorical variables. Data was also represented using appropriate diagrams like bar diagram, pie diagram and box plots.

RESULTS

120 patients suffering from psychiatric illness were included in the study population. The mean duration of illness in the sample was 9.61 ± 7.59 years. 65.83% were males and 34.17% were female among the study population (Figure 1). The mean age of the sample was $37.42 (\pm 8.54)$ (Figure 2).

Among the common mental disorders 25% had adjustment disorder & somatoform disorder, 25% had anxiety disorder, 25% had depressive disorder, and 25% had obsessive compulsive disorder.

Among the severe mental illness 37.5% had bipolar affective disorder, 37.5% had Schizophrenia and 25% had severe depression & other Psychotic disorders (Table 1).

Out of the study population 30.83% of people had family history of alcohol usage, 30% had family history of psychiatric illness and 9.17% had family history of suicidal death (Figure 3). 10% of the population had diabetes mellitus and Hypertension each followed by 5.8% of hypothyroidism and 1.67% of Bronchial asthma (Table 2).

The mean HAM A score was 10.12 ± 6.56 in the study population. Among the people with common mental disorder 67.5% had mild anxiety, 22.5% had mild to moderate anxiety and 5% had moderate to severe and very severe anxiety each (Table 3). According to the YBOCS rating, 20% of the study population had mild symptoms of OCD, 50% had moderate symptoms of OCD and 30% had severe symptoms (Figure 4).

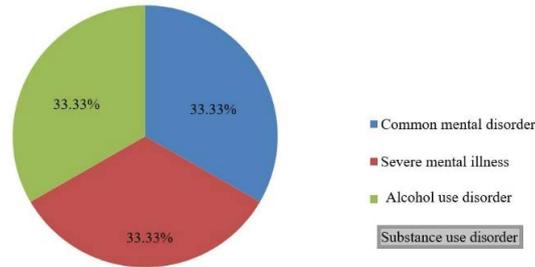


Figure 1: Pie chart of types of illness.

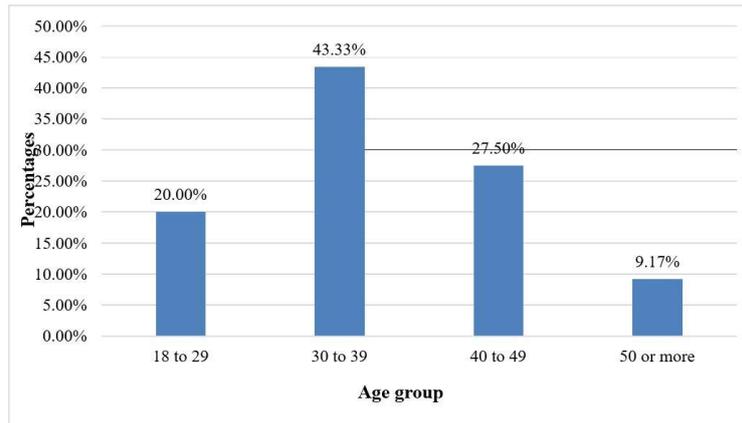


Figure 2: Descriptive analysis of age group in the study population.

Table 1: Diagnosis of the study population.

Diagnosis	Frequency	Percentages
Common mental disorders	40	
Adjustment disorder & somatoform disorder	10	25.00%
Anxiety disorder	10	25.00%
Depressive disorder	10	25.00%
Obsessive compulsive disorder	10	25.00%
Severe mental illness	40	
Bipolar affective disorder	15	37.50%
Schizophrenia	15	37.50%
Other Psychotic Disorders including severe depression with psychotic symptoms	10	25%
Alcohol Use Disorder	40	100%

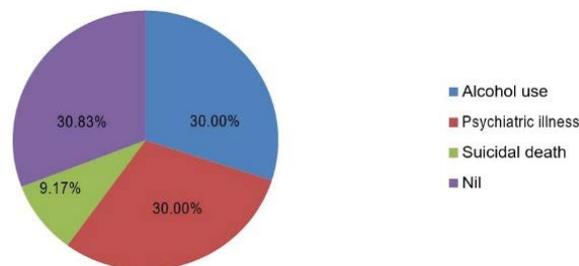


Figure 3: Pie chart of family history of the study population.

Table 2: Analysis of medical comorbidity in the study population.

Medical Comorbidity	Frequency	Percentages
Diabetes mellitus	12	10%
Hypertension	12	10%
Hypothyroidism	7	5.80%
Bronchial asthma	2	1.67%
Nil	87	72.50%

Alcohol use disorder (N=40)

Based on the audit scale used for alcohol use disorder, 5% of the participants were at a high-risk group for addiction while 95% were addicted to alcohol. In persons with Alcohol use disorder 35% of persons had mild depression, 25% persons had moderate depression, 7.5% persons had severe depression and 12.5% of persons had very severe depression. The mean HAM D score was 13.7 ± 6.35 (Figure 5).

In people with Alcohol use disorder 28 (70%) participants had mild anxiety, 7 (17.5%) participants had mild to moderate anxiety and

2 (5%) participants had moderate to severe and 3 (7.5%) participants had very severe anxiety (Table 4). The mean HAM A score was 10.12 ± 6.56 .

Among the study population with common mental disorders 25% had a history of financial stressor, 7.5% had history of occupational stressor and 37.5% had a history of social/environmental stressor (Table 5).

In people with severe mental illness 25% had history of financial stressor, 5% had history of social/environmental stressor and none reported to have occupational stressor. Among the persons with alcohol use disorder 10% had

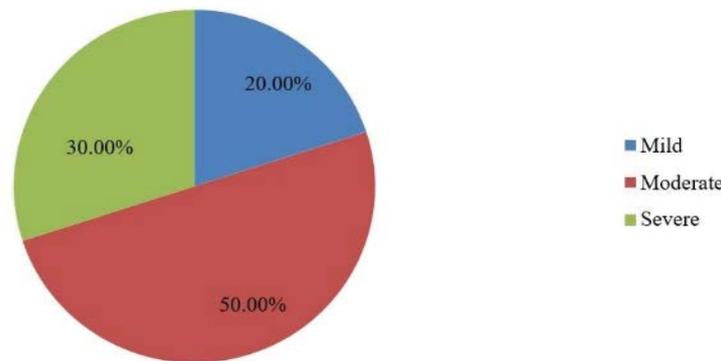


Figure 4: Pie chart of YBOCS rating in the study population suffering with OCD (N=10).

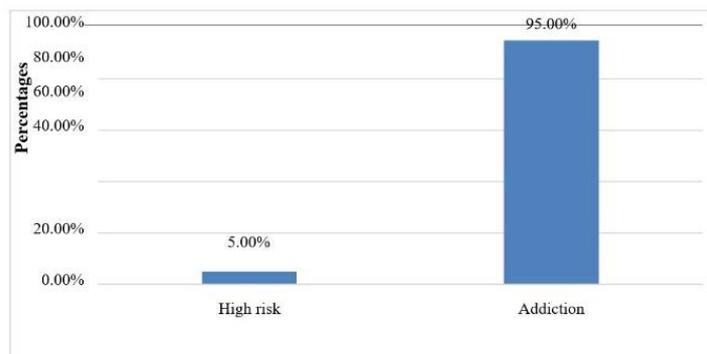


Figure 5: Bar graph of audit scale done in the study population with alcohol use disorder.

Table 3: Hamilton anxiety rating scale.

Anxiety rating	Frequency	Percentages
Mild severity	27	67.50%
Mild to moderate severity	9	22.50%
Moderate to severe	2	5%
Very severe	2	5%

Table 5: Comparison of psychosocial stressor between type of illness (N=120).

Anxiety rating	Frequency	Percentages
Mild severity	28	70.00%
Mild to moderate severity	7	17.50%
Moderate to severe	2	5.00%
Very severe	3	7.50%

history of financial stressor, 5% had history of occupational stressor and 22.5% had history of social / environmental stressor.

Family history of psychiatric illness were found among 33.3% of persons with suicidal ideation and 20% of persons who attempted suicide among the study population.

Family history of alcohol use was found among 25% of persons with suicidal ideation and 33.3% of persons who had attempted suicide. Family history of suicidal death were found among 16.7% of persons who had suicidal ideations and among 26.7% of persons who had attempted suicide in the study population.

Suicidal ideation

Out of the study population 30% had current suicidal ideation. Among people with common mental disorders, 35% had current suicidal ideation (Table 6).

Suicidal attempt

Out of the study population 12.5% had currently attempted suicide. 15% of patients who suffered from common mental disorder had attempted suicide in the past one year. 10% of patients suffering from severe mental illness had attempted suicide within one year. 12.5% of the sample who had alcohol use disorders had attempted suicide in the past year. However, this difference was not statistically significant (P value 0.796) (Table 7). Figure 6 shows the comparison of current suicidal ideation between types of illness. Table 8 shows the comparison of suicidal ideation and suicidal attempt between individual disorders.

Among the study population who had attempted suicide 13.33% had low suicidal intent and they were suffering from common mental disorder (Table 9). Figure 7 shows the severity of suicidal intent among the study population.

Table 6: Suicidal ideation between the types of illness.

Types of illness	Current Suicidal Ideation		Chi square	P-value
	Present	Nil		
Common mental disorders (N=40)	14 (35%)	26 (65%)	6.667	0.036
Severe mental illness (N=40)	16 (40%)	24 (60%)		
Alcohol use disorders (N=40)	6 (15%)	34 (85%)		

The mean severity of ideation was 9.77 ± 5.19.

Table 7: Suicidal attempt between types of illness.

Types of illness	Suicide attempt		Chi square	P-value
	Yes	Nil		
Common mental disorders (N=40)	6 (15%)	34 (85%)	0.457	0.796
Severe mental illness (N=40)	4 (10%)	36 (90%)		
Alcohol use disorder (N=40)	5 (12.5%)	35 (87.5%)		

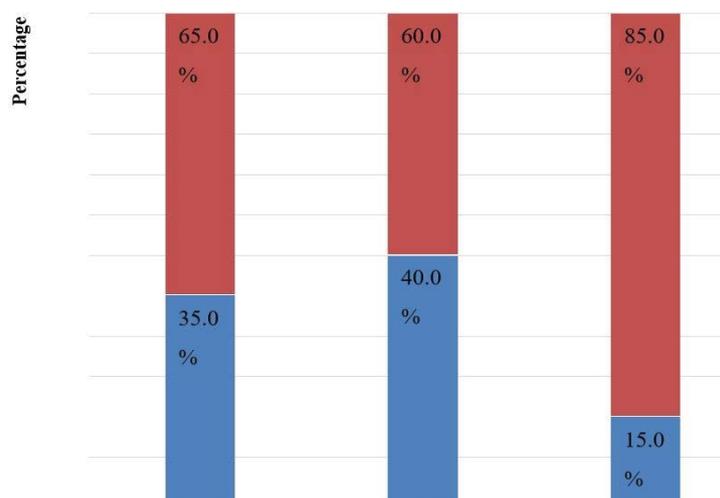


Figure 6: Stacked barchart of comparison of current suicidal ideation between types of illness.

Table 8: Comparison of suicidal ideation and suicidal attempt between individual disorders (N=120).

Diagnosis	Sample size	Suicidal ideation	Suicidal attempt
Depressive disorder (mild & moderate)	10	6 (60%)	4 (40%)
Anxiety disorder	10	2 (20%)	0 (0%)
OCD	10	3 (30%)	0 (0%)
Adjustment & somatoform disorder	10	3 (30%)	2 (20%)
Schizophrenia	15	5 (33.33%)	1 (6.7%)
BPAD	15	7 (46.7%)	1 (6.7%)
Other psychotic disorders including severe depression with psychotic symptoms	10	4 (40%)	2 (20%)
Alcohol use disorder	40	6 (15%)	5 (12.5%)

Table 9: Severity of suicidal intent (N=15).

Disorder	Low intent	Medium intent	High intent
Common mental disorders	2 (13.33%)	2 (13.33%)	2(13.33%)
Severe mental illness	nil	1(6.7%)	3(20%)
Alcohol use disorder	nil	1(6.7%)	4(26.7%)

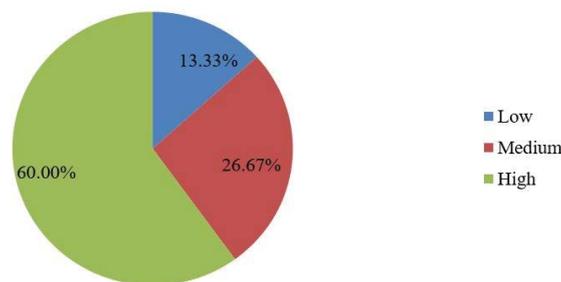


Figure 7: Pie chart of severity of suicidal intent among the study population.

DISCUSSION

120 persons suffering from psychiatric illness were included in the study, out of which 40 were suffering from common mental disorders, 40 were suffering from severe mental illness and 40 were suffering from alcohol use disorder. The mean age of the sample was 37.42(±8.54) since the age selection criteria was set to be above 18th mean age possibly was higher than the Indian mean age. In our current study Suicidal ideation was significantly high in the 4th decade and suicidal attempts were in the 3rd decade which was consistent with the NCRB 2014 reports [9].

Suicidal behaviour was predominantly seen in the younger age group which correlates with studies who reports that the peak incidence of suicidal behaviour was noted in the age group of 15 -44 years [10]. Most suicides occurred intheagesbetween15 and 44 years, with age groups 15 -29 and 30-44 years having almost equal distribution [11]. About 65.83 % of the study population were males and the remaining 34.17% were females. This was because of exclusive presence of men in the alcohol use disorder group. But in most of the studies men have a higher preponderance when completed

suicides are considered. Women are more in having suicidal ideations.

In our study population, Suicidal ideation had a preponderance in female while suicidal attempts were more common among males which is in line with previous study. A study conducted by Srivastava et al reported that the proportion of males committing suicide was significantly higher than females, with male to female ratio of almost 70:30 [12].

6.67% belonged to lower socioeconomic status,53.33% belonged to lower middle class, 29.17% belonged to upper lower class and 10.83% belonged to upper middle class. This is in tune with the hospital attending population of this department. Suicidal ideation and attempt were remarkably high among lower middle socioeconomic status which couldbe due to the selection of sample from that particular group.

Based on the family history, out of the 36 who had suicidal ideation from the study population 33.33% had a history of psychiatric illness followed by 25% & suicidal death who had history of alcohol use and suicidal death respectively The present study revealed that among the 40

persons suffering from common mental disorder 14 persons (35%) had suicidal ideation.

Individuals with major depressive disorder had 60% of suicidal ideation, which was consistent [13]. In our study population, 100% of the individuals with major depressive disorder who attempted suicide had suicidal ideations. A study by Sokero et al [12] also identified that, 95% of who had attempted suicide had suicidal ideation [14-16].

Among persons suffering from schizophrenia, 33.33% had suicidal ideation out of which 6.66% had attempted suicide. Earlier studies in individuals with schizophrenia reported that the attempted suicide ranged from 20 to 40% [19] and lifetime prevalence of suicide was reported as 4.9% [17]. The variation in the results could be explained by the smaller sample size.

Study conducted by Singh et al showed that more than 60% Schizophrenic spectrum disorders correlated psychotic symptoms as a source for wanting to commit suicide, while more than 50% patients with affective disorders related this to family and personal stressors [18]. Among the 15% who had suicidal ideation, 5 (12.5 %) had attempted suicide which was in line with an earlier study that identified that 10% of patients with alcohol dependence syndrome reported suicidal ideas, out of which 7% had attempted suicide [19].

Study by Bhattacharjee et al demonstrated that there was a higher rate of suicide attempt with alcohol use prior to the suicide attempt and it revealed that 17 percent of suicide attempt victims had a record of alcohol intake before the suicide attempt [20]. In our study among the 5 persons who attempted suicide, 4 had high suicidal intent while one had a medium suicidal intent.

CONCLUSION

- ✓ Suicidal ideation was found to be more in persons suffering from severe mental illness (40%) followed by common mental disorders (35%) and Alcohol use disorder (15%).
- ✓ Suicidal attempt in the past one year was found to be high in persons suffering from common mental disorders (15%) followed by alcohol use disorder (12.5%) and severe mental illness (10%).

- ✓ Severity of suicidal intent was found to be high in persons suffering from Alcohol use disorder (26.7%) followed by severe mental illness (20%) and common mental disorders (13.33%).
- ✓ In persons suffering from common mental disorders, those with depressive disorder had the highest suicidal ideation (60%) and suicidal attempt (40%).
- ✓ In persons suffering from severe mental illness, those with Bipolar affective disorder had the highest suicidal ideation (46.7%) followed by other psychotic disorders.
- ✓ Women had a higher rate of suicidal ideation whereas men had higher rate of suicidal attempt.
- ✓ Suicidal behaviour was found to be high in patients with family history of psychiatric illness and among lower middle class.

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ETHICAL APPROVAL

The study was approved by the Institutional Ethics Committee.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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