

A Comparison of Anxiety, Depression and Life Events between Suicidal Ideators and Suicide Attempters

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ABSTRACT

To thwart the suicidal behavior, it is crucial to understand the psychopathology and negative life events associated with suicidal ideators and suicide attempters. The present study aimed to compare anxiety, depression and life events between suicidal ideators and attempters. This was a cross sectional hospital based research conducted at the Department of Psychiatry, in SRM Medical College, Hospital & Research Centre, Kancheepuram, Tamil Nadu and purposive sampling method was used. The sample consists of 30 suicidal ideators and 30 suicide attempters diagnosed as per ICD-10 fulfilling the inclusion and exclusion criteria. Subsequently, Modified Scale for Suicidal Ideation, Hamilton Anxiety Rating Scale, Hamilton Rating Scale for Depression and Social Readjustment Rating Scale were administered to both the groups. The analysis included descriptive statistics, Mann Whitney U test and Spearman Rank Order Correlation using SPSS version 16.0. Results showed that Anxiety was significantly higher in Suicidal ideators than in attempters. Furthermore, we found that there was a strong positive correlation between Anxiety and Depression in Suicide Attempters. Similarly, there was a significant positive correlation between Life Events and Depression in Suicide Attempters. The current study also observed a positive correlation between Anxiety and Life Events in Suicidal ideators.

Keywords: Anxiety, Depression, Life events, Suicide Ideation, Suicide Attempters

Suicide ideation and attempt are the common suicidal behavior in many psychiatric disorders namely major depression, schizophrenia, alcohol dependence and borderline personality disorder (Hawton & Van Heeringen, 2000). A patient with major depression has a 30-fold risk for suicide compared with an individual without depression (Arkar, 2010). Negative life event is one of the risk factors for suicide attempts. Descriptive research of earlier studies suggests that negative life events are perceived as precipitating events or triggers for suicide (Heikkinen et al., 1992). In a study by Conrad et al. (2009) examined 394 patients with major depression subdivided in to three groups: life time suicide attempters, suicide ideators and

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Received: November 28, 2017; Revision Received: January 9, 2018; Accepted: January 25, 2018

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patients without suicide ideation and found that the suicide attempters and ideators were experiencing more emotional distress and depression than non-suicide ideators. Similarly in another study by Monnin et al. (2012) evaluated 273 individuals between 20 to 59 years selected from psychiatric emergency units after their admission for a suicide attempt. The study came to the conclusion that the psychopathological characteristics of attempter population have high proportion of mental disorders, predominantly unipolar depression, anxiety disorders and substance use disorders. There exist two models in understanding the origins of suicidal behavior in young people: stress model and mental health model (Fergusson et al., 2000). The stress model assumes that all youths who are at risk for suicidal behaviors are their responses to stress and difficulties. The mental health model assumes that majority of suicidal behaviors are secondary to psychiatric disorders. However, neither model can completely explain why many individuals who experienced life stress or suffer from mental disorders do not take suicidal actions (Wasserman, 2001). Placidi et al. (2000) assessed 272 inpatients with at least one major depressive episode, with or without a history of a suicide attempt. The major result of the study was that the presence of panic disorder in the context of major depressive episode does not seem to be associated with an increased risk of suicidal behaviour in suicide attempters. In a two year longitudinal study conducted by Sareen et al. (2005) with 7076 individual and reported the presence of anxiety disorder at the baseline was a risk factor for subsequent onset of suicide ideation and attempt even after adjusting for comorbid mental disorders. Additionally, Chioqueta et al. (2003) in a five year longitudinal study and came to the conclusion that depressive disorders, but not anxiety disorders are associated with suicide risk. A study conducted by Vishnuvardhan et al. (2012) in suicide attempters from Bangalore city. The study result was that forty-two percent of the sample had a psychiatric comorbidity, with depression (14%) and dysthymia (12%) being the most common disorders. In another study by Pirkis et al. (2000) conducted a study among Australian adults above 18 years old who had suicidal ideation and suicidal attempters. The research found that 12-month ideation was associated with anxiety disorders, affective disorders and substance abuse disorders. Whereas attempts in the past 12 months were also associated with anxiety disorders, affective disorders and substance abuse disorders. Researchers have consistently shown a significant association between stressful life events and suicidal behavior in the general population of adolescents (Brent et al., 1993; Lewinsohn et al., 1994). A variety of life events found to be related to suicidal behavior include: a bereavement or breakdown of a close relationship; interpersonal conflict with parents, partners or friends; school or work related difficulties; financial difficulties, and legal or disciplinary crises (Fergusson et al., 2000). In a study by Bagge et al. (2013) assessed 110 suicide attempters who were brought to hospital within 24 hours after a suicide attempt. The study came to the conclusion that negative life events were proximal risk factors for suicide attempt. Rowe et al. (2013) conducted a study in 439 undergraduate's college student samples. The study noted a significant positive association was found to exist between negative life events and suicidal behaviour. Likewise in a study by Liu et al. (2005) reported that psychopathology have independent effect on suicidal behaviour and mediate the effect of life events on suicidal behaviour. Hence, the present study is an attempt to find the role of

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anxiety, depression and negative life events in persons with suicidal ideation and attempt. The specific objectives of this study was

To compare the anxiety, depression and life events in persons with suicide ideation and those who attempted suicide.

METHOD

Sample

The present study was a cross sectional hospital based research conducted at the Department of Psychiatry, in SRM Medical College, Hospital & Research Centre, Kancheepuram, Tamil Nadu and purposive sampling was used. The sample consists of 30 suicide attempters and 30 suicide ideators diagnosed as per ICD-10 (WHO, 1992) fulfilling the inclusion and exclusion criteria.

Inclusion criteria for the suicide attempters

- Age range between 17 years to 45 years old
- Previous history of suicidal attempt
- Education 8th and above

Exclusion criteria for the suicide attempters

- Psychotic disorders
- History of neurological condition

Inclusion criteria for the suicidal ideators

- Age range between 17 years to 45 years old
- Presence of suicidal ideas
- Education 8th and above

Exclusion criteria for the suicidal ideators

- Psychotic disorders
- History of neurological condition

Description of the tools:

1. Socio Demographic and Clinical Data Sheet

It is a Semi-structured performa and contains various socio demographic variables like age, gender, religion, education level, marital status, family history, previous history of psychiatric illness

2. Modified Scale for Suicidal Ideation (MSSI) (Miller et al., 1986)

The MSSI is an 18 items scale assesses suicidal symptoms over the past year. The response range from 0 to 3 based on the severity of suicidal thoughts and overall scale scores thus range from 0 to 54.

3. Hamilton Anxiety Rating Scale (HAM-A) (Hamilton, 1959)

The scale consists of 14 items which includes anxious mood, tension, fears, insomnia, intellectual, depressed mood, somatic (muscular, sensory), cardiovascular symptoms,

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respiratory symptoms, gastrointestinal symptoms, genitourinary symptoms, autonomic symptoms, behavior at interview, each defined by a series of symptoms and measure both psychic and somatic Anxiety. Each item is rated on a 5 point scale, ranging from 0 (not present) to 4 (severe).

4. Hamilton Rating Scale for Depression (HAM-D) (Hamilton, 1960)

The scale consists of 21 items, used to measure level of Depression. The scale contains depressed mood, feelings of guilt, suicide, insomnia (early, middle, late), work and activities, Psychomotor retardation, agitation, anxiety (psychological, somatic), somatic symptoms (gastrointestinal, general), genital symptoms, hypochondriasis, loss of weight, insight, diurnal variation, depersonalization and derealization, paranoid symptoms, obsessional and compulsive symptoms. The response ranges from not present 0 to severe 4.

5. Social Readjustment Rating Scale (SRRS) (Holmes & Rahe, 1967)

The scale consists of 50 items used to measure both positive and negative Life Events from last 12 months. A total of 150 or less is good, suggesting a low level of stress in your life.

Procedure for Data Collection

After getting approval from the institutional ethics committee of SRM University, individual who were fulfilling the inclusion and exclusion criteria were taken up for the study. Written informed consent was taken from the patient, after explaining the objectives and procedure of the study in detail. Socio-demographic data was also collected. Furthermore, Modified Scale for Suicidal Ideation, Hamilton anxiety rating scale, Hamilton rating scale for depression and Social readjustment rating scale were administered to both the groups.

Data Analysis

The statistical package for social sciences (SPSS) 16.0 for windows was used for statistical analysis. Descriptive statistics calculated for socio-demographic variables. We have checked the data for normality and found to be non-nominal. Mann – Whitney U Test was applied to observe the significant difference between the groups and Spearman rank order correlation was used to explore the relationship among anxiety, depression and life events

RESULTS

Table 1 shows the Socio Demographic and clinical Variables of Suicide Attempters and Suicidal Ideators

Variable		Suicide Attempters Mean ± SD / (n %)	Suicidal Ideators Mean ± SD/ (n %)	χ ² /F	p
Age		26.30±6.17	26.70±5.50	-0.26	0.79
Education		15.73±2.61	15.73±2.55	0.00	1.00
Gender	Male	15(50.0%)	13(43.3%)	0.26	0.60
	Female	15(50.0%)	17(56.7%)		
Marital	Never	13(43.3%)	9(30.0%)	1.25	0.62

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Variable		Suicide Attempters Mean ± SD / (n %)	Suicidal Ideators Mean ± SD/ (n %)	χ ² /F	p
Status	married				
	Married	15(50.0%)	18(60.0%)		
	Separated	2(6.7%)	3(10.0%)		

Table 1 shows the descriptive statistics of socio demographic variable of both the patient groups (suicidal attempters and ideators). The mean age of suicide attempters and ideators was found to be 26.30±6.17 and 26.70±5.50 respectively. At the same time the mean years of education of suicide attempters and ideators was found to be 15.73±2.61 and 15.73±2.55 respectively. In suicide attempters group, males 15(50.0) and females 15(50.0) were equally distributed. The suicidal ideators group consisted of 13(43.3) males and 17(56.7) females. In suicide attempters group most patients were married 15(50.0) and the remaining group consisted of those who never married 13(43.3) and those who separated 2(6.7) from spouse. But in ideators group 18(60.0) were married, 9(30.0) were never married and 3(10.0) were separated.

Table 2 shows the Mean Rank of anxiety, depression and life events between suicide attempters and suicidal ideators.

Variable	Suicide attempters		Suicidal ideators		U	Z	P
	Mean Rank	Sum of Ranks	Mean Rank	Sum of Ranks			
HAM-A	24.73	742.00	36.27	1088.00	277.00	2.56	.010*
HAM-D	28.90	867.00	32.10	963.00	402.00	0.71	0.476
Life events	31.63	949.00	29.37	881.00	416.00	0.50	0.615

*p<0.05

Table 2 shows the comparison of Anxiety, depression and life events between suicide attempters and ideators using Mann-Whitney U-test. The mean rank of suicide attempters and ideators in HAM-A was found to be 24.73 and 36.27 respectively with the significant Z value of 2.566 (p<.05). The mean rank was significantly higher in suicidal ideators than in suicide attempters. The mean rank of suicide attempters was found to be 28.90 and suicidal ideators were 32.10 with the Z value of 0.71. There was no significant difference between the groups. Furthermore, the mean rank of life events in suicide attempters was found to be 31.63 and in suicidal ideators it was 29.37 with the Z value of 0.50. There was no significant difference between the groups.

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Table 3: shows the relationship among anxiety, depression and life events of suicide attempters group (N=30)

Variable	Life event	HAM-A	HAM-D
Life event	----	0.265	0.585**
HAM-A	0.265	-----	0.509**
HAM-D	0.585**	0.509**	-----

** $p < 0.01$

Table 3 shows the relationship among life events, anxiety and depression of suicide attempters using spearman rank order correlation. There was a significant positive correlation between life event and depression ($r = 0.585$, $p < .01$) which is significant at .01 level. Similarly, there was a positive correlation between anxiety and depression ($r = 0.509$, $p < .01$).

Table 4: shows the relationship among anxiety, depression and life events of suicidal ideators (N=30)

Variable	Life event	HAM-A	HAM-D
Life event	----	0.376*	0.210
HAM-A	0.376*	-----	0.253
HAM-D	0.210	-0.253	-----

* $p < 0.05$

Table 4 shows the relationship among life events, Anxiety and Depression of suicidal ideators using Spearman rank order correlation. There was a significant positive correlation between life event and anxiety ($r = 0.376$, $p < .05$).

DISCUSSION

Our study aimed to present the differences between suicidal ideators and attempters of clinically depressive individuals related to anxiety, depression and life events. The present study found that anxiety was significantly higher in suicide ideators than in attempter. This finding is in accordance with previous study, reported greater anxiety was present in the non-attempters (Placidi et al., 2000). In contrast a study of anxiety measures reported suicidal adolescents showed higher state and trait anxiety levels in attempters than in non-attempters (Ohring et al., 1996). In a Swedish study it was found that many depressed patients who committed suicide had received anxiolytics instead of antidepressants shortly before death. Perhaps their physicians were responding to the anxiety symptoms of depression, thereby not only failing to treat the depression but possibly facilitating suicide by reducing anxiety (Isacsson et al., 1992). However, Sareen et al. (2005) reported that presence of Anxiety was significantly associated with both suicidal ideation and attempt. The study also observed that the pre-existing Anxiety disorder is an independent risk factor for subsequent onset of both suicidal ideation and attempt. At times Anxiety may act as a protective factor when it is associated with fear of death or illness which restrain them from acting on their suicidal impulses (Placidi et al., 2000). But if severe suicidal ideation and hopelessness along with impulsivity may override the Anxiety and buffer suicidal attempt or multiple suicide attempt

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in patient. Hence the untreated Anxiety disorder can become missed opportunity to save a life. The present study couldn't find any significant difference between the groups in terms of Depression. In contrast earlier research reported that the patient with suicidal ideas have higher Depression. This can be possibly explained as the psychomotor retardation associated with severe depression will delay the suicide act. The relief of psychomotor retardation may promote suicidal actions (Benkert & Hippus, 1980). But the time where the symptoms is reduced, again increases the risk of suicide. Hence the therapist should be cautious about self-harm or suicidality in depressed patient during follow-up (Bradvik et al., 2003, Chioqueta et al., 2003; Consoli et al., 2015).

Moreover, the present study couldn't elicit any significant difference in Life Events between suicidal attempters and ideators. In contrast previous research has reported that an individual will have increased risk of attempting suicide soon after experiencing a negative Life Event specifically interpersonal negative Life Events even though the Life Events may varies according to life cycle (Bagge et al., 2013). The present study found a positive correlation between Anxiety and depression in Suicide Attempters. This finding is in agreement with earlier studies (Sareen et al., 2005). The researchers detected that Anxiety along with Depression increases the risk of suicide attempt. It can be explained that if problems persist, people may become anxious, lose hope and feel nothing is worthwhile. Hence they start to get engage in deviant lifestyles and contemplate or attempt suicide (Sareen et al., 2005).

The present study also found a significant positive correlation between negative life events and Depression in Suicide Attempters. This finding is consistent with earlier research by Osvath et al., (2004) reported a strong positive correlation between negative events and psychopathological symptoms like depression, hopelessness, anger and lack of self esteem. A possible explanation for this effect is negative experiences might play a significant role in the development of psychopathological abnormalities (Osvath et al., 2004).

In this cross sectional study we couldn't found any significant correlation between Anxiety and Depression in Suicide Ideators. But prior researches have found a relationship between them. The studies came up with conclusion that Anxiety alone is not responsible for suicide instead Anxiety is present along with Depression the risk of suicide will be increased (Sareen et al., 2005). The current study observed a positive correlation between Anxiety and Life Events in Suicidal ideators. In a study by Malik et al. (2014) examined the relationship between anxiety and suicidal ideation. They found that patients with anxiety were more likely to have suicidal ideation, attempted suicide, and completed suicide compared to those without anxiety.

CONCLUSION

Suicide ideators and attempters can be differentiated from each other based on their anxiety. However, we couldn't elicit the role of depression still they are found to be proximal risk factors of suicidal behaviour. Anxiety was found to mediate the negative life events and

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suicide ideation whereas depression was found to mediate negative life events in suicide attempters. Early negative life events, underlying psychopathology can result in suicidal behaviour. Hence assessing for anxiety, depression and negative life events on suicidal ideators and attempters can help to prevent suicidal behaviours.

Limitations

This study presented some limitations. The samples were not randomly selected. The sample size was small which found to limit the generalization of the study findings. During assessments many of the Suicide Attempters were found to act on their impulsivity hence impulsivity should be measured in the future study.

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How to cite this article: Jeeshma R & Pujam N K (2018). A Comparison of Anxiety, Depression and Life Events between Suicidal Ideators and Suicide Attempters. *International Journal of Indian Psychology*, Vol. 6, (1), DIP: 18.01.014/20180601, DOI: 10.25215/0601.014