RISK FACTORS IN SUICIDE AMONG MALE ALCOHOL DEPENDENTS

C. Arun Prasanna¹, R. Gandhibabu², M. Asok Kumar³

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ABSTRACT: BACKGROUND: Alcohol dependence is a potent risk factor for completed suicide but data are limited on factors that distinguish risk within this high risk population. AIM: To study the risk factors for suicide attempts among male alcohol dependents. METHODS: This was a case control study conducted from January to July in the Year 2014. Cases and controls were recruited from Department of Psychiatry, Rajah Muthiah Medical College, using various tools such as semi structured proforma, Short term Alcohol dependence Data questionnaire, Beck's suicidal Intent scale, Hamilton Depression Rating scale. RESULTS: Descriptive analysis of the cases show that mean age of suicide was Around 35 years of which 43.3% had poor educational qualification, 50% of cases. Belong to low income group, 60% of the cases belong to joint families rather than Nuclear families, 36.7% had attempted suicide in the morning hours, 70%. Had attempted suicide in their home, 60% were hospitalized and treated, 90%. Were intoxicated at the time of attempt, 56.7% self-poisoned, 43% attempted, hanging, and about 53.3% had previous suicidal attempts. There was significant, difference between cases and controls regarding the level of dependence, Stressful life events and depression. CONCLUSION: The study concluded that Alcohol dependent individuals with Poor educational status – (up to primary school completion) and who live in joint families are at higher risk for suicide .Stressful life events (family conflict, financial loss ,unfulfilled commitments) and higher degree of dependence with Co – morbid depressive disorder is also one of the major risk factor in the study

KEYWORDS: Suicide, Alcohol dependence, Depression.

INTRODUCTION: Suicide is derived from the Latin word for "Self - Murder". It is defined as a fatal act that represents the person's wish to die. Suicidal behavior or suicidality can be conceptualized as a continuum ranging from suicidal ideation to suicide attempts and completed suicide. A developmental process which leads to suicidal ideation, self - destructive behaviour, in some cases even to suicide, and its consequences to the survivors is often referred to as a suicidal process. Attempted suicide / deliberate self-harm are terms used to describe behaviors through which people inflict acute harm upon themselves, poison themselves, or try do so, with non - fatal outcome.

ACCORDING TO KAY REDFIELD JAMISON: "The suffering of the suicidal is private and inexpressible, leaving family members, friends and colleagues to deal with an almost unfathomable kind of loss, as well as guilt. Suicide carries in its after math a level of confusion and devastation that is, for the most part, beyond description."

The phenomenon of substance abuse has many implications for Brain research and for clinical psychiatry. Some substances can affect both internally perceived mental states such as mood and externally observable activities such as behaviour.

Alcohol use and Alcohol related disorders are associated with 25% of all suicides.
Alcohol abuse reduces life expectancy by approximately 10 years and alcohol leads all the other substances in substance related deaths.

Alcohol abuse is a major precipitating factor for suicide. The suicide rate is higher when compared to general population. Prevalence rate of suicide in persons with alcohol related disorders range from 10 - 15%. Up to 40% have made a previous suicide attempt. A past suicide attempt is perhaps the best indicator that a patient is at increased risk of suicide.

There are some general characteristics of suicidal behaviour in alcohol dependent individuals. They are likely to be young, to be single or separated and to have made serious attempts. They differ from non-attempters by higher levels of impulsive aggression, drug use and psychiatric comorbidity particularly depressive disorders. (Modesto - Lowe et al.,)\(^1\)

A high prevalence of additional psychiatric disorder is found among persons seeking treatment for alcohol. About 30 - 40% of persons meet the diagnostic criteria for major depressive disorder sometime during their life-times. Persons with Alcohol related disorders and major depressive disorder are at greater risk for attempting suicide. (Conner et al.,)\(^2\) After mood disorders substance dependence represents the most frequently encountered diagnosis among victims of suicide.

Suicide is apparently a preventable volitional act. Examination of multiple factors may improve assessment of suicide risk. Alcohol dependence is a potent risk factor for completed suicide and medically serious attempts, but data are limited on factors that distinguish risk within this high risk population. Hence, the purpose of this study is to identify risk factors for suicide attempts among alcohol dependents.

**AIM AND OBJECTIVES: AIM OF THE STUDY:** To identify the risk factors associated with suicide attempts among individuals with alcohol dependence.

**OBJECTIVES:**
1. To describe the suicidal behaviour of Alcohol dependents.
2. To study the incidence and association between socio- demographic variables and suicide attempts in Alcohol dependents.
3. To study the association between stressful life events and suicide attempts in Alcohol dependents.
4. To assess the co-occurrence of depression among Alcohol dependents who attempt suicide.

**MATERIALS AND METHODS: SETTING:** Cases and controls were recruited from Department of psychiatry, Rajah Muthiah medical College. Study was conducted from January to July in the year 2014.

**SAMPLE:** A total of thirty cases and thirty controls were recruited for the study.

**DESIGN:** Case control study has been used.
CASES:
INCLUSION CRITERIA:
- Persons attending the out patients department of psychiatry and patients admitted in the ward.
- Persons satisfying the criteria for Alcohol dependence according to ICD-10 classification of mental and behavioural disorders.
- Persons who had indulged in any deliberate self-harm accompanied by an expression of intent to die after the onset of Alcohol use.
- Persons aged eighteen years and above.

EXCLUSION CRITERIA:
- Severely psychotic patients.
- Persons with cognitive impairments.
- Persons below eighteen years of age.
- Patients with significant medical problem.
- Patients without reliable informant.
- Patients who are not willing to participate in the study.

CONTROLS:
INCLUSION CRITERIA:
- Persons attending the out patients department of the Psychiatry and patients admitted in ward.
- Persons satisfying the criteria for Alcohol dependence according to ICD-10 classification of mental and behavioural disorders.
- Persons who were matched with cases for age, marital status, but who had not indulged in any act of deliberate self-harm.

EXCLUSION CRITERIA:
- Severely psychotic patients.
- Persons with cognitive impairments.
- Persons aged below eighteen years of age.
- Patients who are not willing to participate in the study.

TOOLS USED:
I. Self-innovated proforma to elicit the socio demographic data and circumstances regarding suicide attempt.
II. Short term Alcohol dependence Data questionnaire.
III. Beck's suicidal intent scale.
IV. Presumptive stressful life events scale (Gurmeet Singh et al.) V. Hamilton Depression Rating scale.
V. Mini mental status examination.
VI. The ICD-10 classification of mental and behavioural disorders.
I. Self-innovated proforma:

Information regarding name, age sex, marital status, education, occupation and family system were obtained.

Information regarding circumstances of suicidal attempt was also gathered-date, time, place of attempt, treatment, and alcohol consumption prior to attempt, method of attempt and accessibility.

Information regarding prior attempts was also obtained.

II. Short-form Alcohol Dependence Data Questionnaire (SADD): The drinking pattern was assessed using the above questionnaire. This contains 15 items. This elicits the details regarding preoccupation about drinking, day time drinking, severity of dependence, withdrawal symptoms, hallucinatory experiences, blackouts, drinking at work place. Each item can be scored as 0-never, 1-Sometimes, 2-often, 3-nearly always. A score of 20 or more indicates high dependence. This questionnaire measures the degree of dependence and the ability to control drinking.

III. Suicidal intent scale: Beck, Schuyler and Herman (1974) developed a scale to measure the, Degree of suicidal intent. The scale has two sections:

1. The first covers the circumstances surrounding the attempt.
2. The second describes the patient's expectations and feelings at the time of attempt.

It includes fifteen items each one can be scored 0, 1 or 2. The total score ranges between 0-30. High scores correspond to higher suicidal intent.

IV. Presumptive stressful life events scale: The above scale was developed by Gurmeet Singh et al. in the year 1984. This scale has 51 items and each item has a mean stress score. A cumulative score can be obtained by summing up the individual scores and weighed depending upon the stress caused to the individual. This scale assesses the events in lifetime or within a short span of time.

V. Hamilton Rating scale for depression: The Hamilton rating scale for depression developed by M. Hamilton is the most widely used rating scale to assess the symptoms of depression. The Ham-D is an observer-rated scale consisting of 17 to 21 items (including two part items, weight and diurnal variation). Ratings are based on clinical interview, plus any additional available information such as nursing or family member report. The items are rated on either a 0 to 4 spectrum or a 0 to 2 spectrum. The Ham-D also relies quite heavily on the clinical interviewing skills and the experience of rater in evaluating individuals with depressive illness. As most patients score zero on rare items in depression (depersonalisation, obsessional and paranoid symptoms), the total score on the Ham-D generally consists of only the sum of first 17 items. The strength of Ham-D is its excellent validation/research base, and case of administration. Its use is limited in individuals who have psychiatric disorders other than primary depression.

VI. Mini-mental status examination: This scale developed by M Folstein in 1975, is a screening instrument that gives a brief assessment of an individual's orientation to time and place, recall ability, short memory, and arithmetic ability. The total score ranges from 0-30. Patients with mild Dementia tend to score from 20-24, moderate from 11 to 19 and severe from 0-10.
VII. THE ICD-10 Classification of mental and behavioural disorders:

F10.2 DEPENDENCE SYNDROME: A cluster of physiological, behavioral and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviors that once had greater value. A central descriptive characteristics of the dependence syndrome is the desire (often strong, sometimes over powering) to take psychoactive drugs (which may or may not have been medically prescribed) alcohol or tobacco.

There may be evidence that return to substance use after a period of abstinence leads to a more rapid reappearance of other features of the syndrome than occurs with non-dependent individuals.

DIAGNOSTIC GUIDELINES: A definite diagnosis of dependence should usually be made only if three or more of the following have been present together at some time during the previous year:

a. Strong desire or sense of compulsion to take the substance.

b. Difficulties in controlling substance-taking behaviour in terms of its onset, termination or levels of use.

c. Physiological withdrawal state when substance use had ceased or been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance; or use of the same (or a closely related) substance with the intention of reliving or avoiding withdrawal symptoms.

d. Evidence of tolerance, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol and opiate-dependent individuals who may take daily doses sufficient to incapacitate or kill non-tolerant users).

e. Progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects.

f. Persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually or could be expected to be, aware of the nature and extent of the harm.

PROCEDURE: A total of thirty cases and thirty controls that fulfilled the inclusion and exclusion criteria were recruited for the study. They were informed about the study and informed consent was obtained. The cases were matched with controls for age, and marital status. To assess the cognitive status MMSE was done.

STATISTICAL METHODS EMPLOYED: Qualitative data were given in frequencies with their percentages. Data were analyzed using Pearson Chi-square test. Quantitative data were given in mean and standard deviation. Data were analyzed using student independent t-test. Correlation between life events, suicidal intent and depression were analyzed using Pearson’s correlation coefficient method. P value less than 0.05 was taken as significant.
OBSERVATION AND RESULTS:
SOCIO DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE TABLE-1

AGE DISTRIBUTION:

| Age group (Yrs.) | No. of cases | Controls | Chi-square | P value |
|------------------|--------------|----------|------------|---------|
| 16-35            | 20 (66.7%)   | 20 (66.7%) | $x^2 = 0.00$ | 1.00 Not significant |
| 36-55            | 8 (26.7%)    | 8 (26.7%)  |            |         |
| >55              | 2 (6.7%)     | 2 (6.7%)   |            |         |
| Total            | 30           | 30        |            |         |

Table 1

Age of persons in the study group was about 35 years. As age matched controls were taken for the study their percentage was same as for cases. There was no significant statistical difference between cases and control in age distribution.

MARITAL STATUS:

| Marital Status | Cases       | Controls    | Chi-square | P value |
|----------------|-------------|-------------|------------|---------|
| Married        | 24 (80.0%)  | 24 (80.0%)  | $x^2 = 0.00$ | 1.00 Not significant |
| Unmarried      | 5 (16.7%)   | 5 (16.7%)   |            |         |
| Divorced       | 1 (3.3%)    | 1 (3.3%)    |            |         |
| Total          | 30          | 30          |            |         |

Table 2

As marital status matched controls were taken for the study, their percentage was same as for cases. There was no significant statistical difference between cases and control.

EDUCATIONAL STATUS:

| Educational status | Cases       | Controls    | Chi-square | P value |
|--------------------|-------------|-------------|------------|---------|
| Illiterates        | 9 (30.0%)   | 4 (13.3%)   |            |         |
| Primary school     | 13 (43.3%)  | 5 (16.7%)   | $x^2 = 11.67$ | 0.009 significant |
| High school        | 7 (23.3%)   | 16 (53.3%)  |            |         |
| College            | 1 (3.3%)    | 5 (16.7%)   |            |         |
| Total              | 30          | 30          |            |         |

Table 3
Among cases majority of them had primary school Education (43.3%), when compared with cases majority of the controls had high school educational qualification (53.3%). There is significant statistical difference between cases and controls.

**OCCUPATIONAL STATUS:**

| Occupational status | Cases     | Controls   | Chi-square | P value       |
|---------------------|-----------|------------|------------|---------------|
| Employed            | 27 (90.0%)| 25 (83.3%) | x2 = 0.58  | 0.44 Not significant |
| Unemployed          | 3 (10.0%) | 5 (16.7%)  |            |               |
| **Total**           | **30**    | **30**     |            |               |

Table 4

Among the cases, majority of them were employed (90.0%). But they had work related stressors which was evident from the assessment on scale. There is no significant statistical difference between cases and controls.

**INCOME:**

| Income     | Cases | Controls | Chi-square | P value       |
|------------|-------|----------|------------|---------------|
| <1500      | 13 (43.3%) | 11 (36.7%) | x2 = 0.29  | 0.86 Not significant |
| 1500-5000  | 15 (50.0%) | 17 (56.7%) |            |               |
| >5000      | 2 (6.7%)  | 2 (6.7%)  |            |               |
| **Total**  | **30**    | **30**    |            |               |

Table 5

Majority of cases and controls belonged to 1500-5000 income group. There was no significant statistical difference between cases and controls.

**DOMICILE:**

| Domicile | Cases     | Controls   | Chi-square | P value       |
|----------|-----------|------------|------------|---------------|
| Urban    | 27 (90.0%)| 29 (96.7%) | x2 = 1.07  | 0.31 Not significant |
| Rural    | 3 (10.0%) | 1 (3.3%)   |            |               |
| **Total**| **30**    | **30**     |            |               |

Table 6

Among cases and controls majority of them are from urban background. There was no significant statistical difference between cases and controls.
FAMILY SYSTEM:

| Family system | Cases   | Controls  | Chi-square | P value  |
|---------------|---------|-----------|------------|----------|
| Joint         | 18 (60.0%) | 9 (30.0%) | $x^2 = 5.45$ | 0.02* significant |
| Nuclear       | 12 (40.0%) | 21 (70.0%) |            |          |
| Total         | 30      | 30        |            |          |

Table 7

Majority of cases (60.0%) belong to joint family system. Among controls majority of them (70.0%) belong to nuclear family system. There is significant statistical difference between cases and controls.

DATA REGARDING THE CIRCUMSTANCES OF SUICIDAL ATTEMPT

TIME OF ATTEMPT:

| Time of attempt | Cases n=30 | Percentage |
|-----------------|------------|------------|
| Morning         | 11         | 36.7%      |
| Afternoon       | 5          | 16.7%      |
| Evening         | 6          | 20.0%      |
| Night           | 8          | 26.7%      |

Table 8

Majority of the cases had made their attempt in the morning (36.7%). About 26.7% had attempted in the night, 20.0% had attempted in the Evening and 16.7% had attempted in the afternoon.

PLACE OF ATTEMPT:

| Place of attempt | Cases n=30 | Percentage |
|------------------|------------|------------|
| Home             | 21         | 70.0%      |
| Public place     | 8          | 26.7%      |
| Others home      | 1          | 3.3%       |

Table 9

Most of the cases had made their attempt at home (70.0%). About 26.7% of cases had made their attempt at public place, 3.3% had attempted at other’s home.
COMPARISON OF TREATMENT:

| Treatment       | Cases n=30 | Percentage |
|-----------------|------------|------------|
| Treated         | 18         | 60.0%      |
| Not treated     | 12         | 40.0%      |

Table 10

 Majority of the cases were hospitalized and treated (60.0%). About 40.0% of cases were untreated.

INTOXICATION AT THE TIME OF ATTEMPT:

| Intoxicated during attempt | Cases n=30 | Percentage |
|----------------------------|------------|------------|
| Intoxicated                | 27         | 90.0%      |
| Not intoxicated            | 3          | 10.0%      |

Table 11

Most of the cases were intoxicated at the time of attempt (90.0%). About 10.0% were not intoxicated at the time of attempt.

METHOD OF ATTEMPT:

| Method of attempt | Cases n=30 | Percentage |
|-------------------|------------|------------|
| Poisoning         | 17         | 56.7%      |
| Hanging           | 13         | 43.0%      |

Table 12

About 56.7% of cases attempted suicide by poisoning, 43.0% by hanging.

ACCESSIBILITY:

| Accessibility of the method | Cases n=30 | Percentage |
|-----------------------------|------------|------------|
| Home                        | 19         | 63.3%      |
| Procured                    | 11         | 36.7%      |

Table 13

About 63.3% of cases made their attempt at home, 36.7% made an effort to procure the material.
PREVIOUS SUICIDAL ATTEMPTS:

| Number of attempts | Cases n=30 | Percentage |
|--------------------|------------|------------|
| Nil                | 14         | 46.7%      |
| One                | 7          | 23.3%      |
| Two                | 6          | 20.0%      |
| Thrice or above    | 3          | 10.0%      |

Table 14

Majority of the cases (46.7%) had no previous attempts, 23.3% of cases had attempted once, 20.0% had attempted twice and about 10.0% had three or more attempts.

COMPARISON FOR TOTAL SCORE IN SADD:

| Group   | N   | Mean | Std. Deviation | Student t test   |
|---------|-----|------|----------------|------------------|
| SADD    |     |      |                |                  |
| Cases   | 30  | 41.10| 1.583          | t = 13.73        |
| Controls| 30  | 32.30| 3.131          | p = 0.001        |

Table 15

From the above table it is understood that there is significant difference between cases and controls regarding the level of dependence. Majority of the cases had higher degree of dependence.

COMPARISON FOR TOTAL SCORE IN STRESSFUL LIFE EVENTS SCALE:

| Group     | N   | Mean   | Std. Deviation | Student t test |
|-----------|-----|--------|----------------|----------------|
| Life events |     |        |                |                |
| Cases     | 30  | 192.73 | 65.883         | t = 6.27       |
| Controls  | 30  | 69.23  | 39.069         | p = 0.001      |

Table 16

There was significant statistical difference in total mean score of stressful life events scale among the cases and controls. Most commonly reported stressful events are family conflict, financial loss, marital conflict and unfulfilled commitments.
COMPARISON OF LIFE EVENT SCORE AND SUICIDAL INTENT AMONG CASES:

| Life events | Suicidal intent | N | Mean | Std. Deviation | Student t test |
|-------------|-----------------|----|------|----------------|----------------|
| <24.17      | 13              | 157.85 | 57.464 |
| >24.17      | 7               | 219.41 | 60.379 |

Table 17

The cases were divided based on the mean of the intent score (Mean - 24.17). Persons scoring above the mean (n = 7) have high suicide intention. Persons scoring below the mean (n = 13) have low suicide intent. These two groups were compared for their life events scores.

The mean total score for life events scale in cases with high intent is 219.41 with SD 60.379. For cases with low intent mean is 157.85 with SD 57.464. This difference was statistically significant. Hence there is a relationship between high intent and higher life event score.

COMPARISON FOR DEPRESSION:

| GROUP | Cases | Control |
|-------|-------|---------|
|       | N     | %       | N     | %       |
| Depression | 26 | 86.7% | 2 | 6.7% |
| No. depression | 4 | 13.3% | 28 | 93.3% |

Table 18

x² = 38.57, p = 0.001 significant.

About 86.7% of cases have met the diagnostic criteria for depression. Among controls about 6.7% of have met the depression criteria. When cases and controls were compared for depression, there was significant difference. Thus it is inferred that there is association between suicide attempt and depression in Alcohol dependents.

CORRELATION BETWEEN LIFE EVENTS, DEPRESSION AND SUICIDE INTENT:

| Life events | Life events | Suicide intent | Depression |
|-------------|-------------|----------------|------------|
| Pearson correlation | 1 | 0.381(*) | 0.295(*) |
| Sig (2-tailed) | - | .038 | .02 |
| N | 30 | 30 | 30 |
Correlation is significant at the 0.05 level (2-tailed)

Among the cases the correlation between life events, depression and suicide intent was found out using Pearson’s correlation coefficient formulae. There was significant correlation between life events, suicide intent and depression.

**DISCUSSION:** The study was carried out by using a case control design. Both the cases and controls were matched for socio-demographic variables such as age and marital status with the aim of controlling confounding factors before recruitment and analysis. To assess the cognitive status MMSE was done. The patients with cognitive impairment were excluded from the study. The cases and controls were compared over various socio demographic variables. The variables compared are age, marital status, educational status, occupation, Income, domicile and family system.

The mean age of the study group was about 35 years. This is in accordance with the study of DESHPANDE et al., who reported that the study group had an age range of 21-59 yrs. He also pointed out that the mean age of problem drinking was 26-32 yrs. and the mean alcohol use was 11-18 years. As age matched controls were taken for the study, their percentage was same as that of cases. There was no significant statistical difference between the two groups.

Majority of the cases were married. About 16.7% were unmarried. But in most of the studies, majority of the cases were either single or divorced (PREUSS et al.; MODESTO-LOWE et al.) Since marital status matched controls were taken for the study, their percentage was same, when compared with cases. There was no significant difference between the study groups.

Regarding educational status, majority of the suicide attempters had only primary school education. When compared with controls there was significant statistical difference between the study groups. BEAUTRAIS in his study had said that one of the risk factors for suicidal behaviour is educational disadvantage. SCHMIDTKE et al. had said that one of the potential risk factor for attempted suicide in alcohol dependents is poor education.

Most of the suicide attempters were employed when compared to control group. This is in contrast to the study of SCHMIDTKE et al., where he concluded that unemployment is the risk factor in suicide attempters. There was no significant statistical difference between the groups. Majority of the cases and controls belonged to 1500-5000 income groups. There was no significant statistical difference between cases and controls. PATILVANSHREE et al. said that attempted suicide in Alcohol dependents is common in those individuals whose income is less than Rs.500/- month.

When compared with non-attempters, higher number of attempters had come from joint family system. ADITYANJEE et al. had found that more suicide attempters in India came from joint
family system. There was significant statistical difference between cases and controls. Most of the cases had made their suicide attempt in the morning. This is in contrast to the study of VALTONEN et al. where the study subjects had attempted suicide in the late evening and around mid-night.

About 60% of cases were hospitalized and treated. Treated cases were characterized by serious suicidal intent and medical threat to life. HUFFORD stated that acute effects of alcohol intoxication act as proximal risk factors for suicidal behaviour.

SHER had stated that attempters are more prone for suicide especially at the end of a binge or in the very early phase of withdrawal.

In our study about 56.7% of cases had attempted suicide by poisoning (due to organ phosphorous compounds). This is similar to various studies. PONNUDURAI et al. Found that most common mode of suicide in Chennai, was the use of organ phosphorous compound poisoning. NIELSEN et al. had said that suicidal intent did not influence the choice of toxic agents, nor was the choice of method and / or choice of toxic agent affected by alcohol ingestion suicide in India.

About 53.3% of cases had previous suicidal attempts. HISTY et al. said that many cases had history of previous suicidal attempts. MODESTO- LOWE et al. in their study said that suicide attempters are likely to be young and have made prior attempts. Cases and controls were compared for the severity of dependence by using SADD questionnaire. Most of the cases had higher degree of dependence. There was significant statistical difference between cases and controls. CORNELIUS et al. had said that quantity of drinking per drinking day was significantly higher in those making a recent suicidal attempt.

There was significant statistical difference in the total mean score of stressful life events scale among cases and controls. Most commonly reported events were family conflict, financial loss and unfulfilled commitments. PAYKEL et al. said that most common stressful life event in attempters is interpersonal problem. BROWN et al. said that severe and chronic life stressors may lead to alcohol relapse. CONNER et al. said that financial difficulties were frequent among medically serious attempters.

In our study the attempters with high suicidal intent had more life event scores when compared with persons with low intent. This difference was statistically significant. Majority of the cases had depressive disorder. When compared with controls, there was significant statistical difference. GUPTA SUMEET et al. in their study found that about 20.3% had mood disorders (depressive disorder). CHAUDHARY et al. said that alcoholics have a greater risk for developing depression about 33.3%, when compared to non-alcoholics (6.6%). WALLER et al. said that unipolar and Bipolar I disorder are associated with concurrent alcohol use disorder.

In our study, when life event was compared with suicide intent and depression there was significant correlation between them. When suicidal intent was compared with life events and depression, there was significant correlation between suicide intent and life events, but not with depression. When depression was compared with life events and suicide intent, there was significant correlation between depression and life events, but not with suicide intent. Hence it is inferred that suicide attempters with severe stressors are more prone for depression and high suicide intent.

**SUMMARY:** The present study is an attempt to find out the risk factors associated with suicide attempts among male alcohol dependents. The sample in this study consists of thirty cases and thirty controls recruited from department of psychiatry, Rajah Muthiah Medical College. The study groups
were interviewed with informed consent and the following instruments were used: self-innovated proforma to elicit the Socio demographic data questionnaire, Beck's suicidal intent scale, presumptive stressful life events scale, Hamilton Depression Rating scale and Mini mental status Examination.

There was no significant difference between cases and controls with regard to socio demographic variables except for educational status and family system. Descriptive analysis of the cases show that 36.7% had attempted suicide in the morning hours, 70% had attempted suicide in their home, 60% were hospitalized and treated, 90% were intoxicated at the time of attempt, 56.7% self-poisoned, 43% attempted hanging, and about 53.3% had previous suicidal attempts.

The cases and controls were compared for the following variables; severity of dependence, Life events and depression. There was statistically significant difference between cases and controls regarding the severity of dependence as indicated by SADD. Thus it is concluded that severity of dependence is one of the risk factors for attempted suicide. When the life events are studied as a possible factor for attempted suicide, it is concluded from this study that cumulative stressful life events is significantly associated with suicidal attempters, as the study groups differed significantly for total presumptive life event scores.

In our study we had also found that suicide attempters with severe stressors are more prone for depression and high suicide intent. Several studies indicate that people drink as a means of coping with economic stress, job stress, and marital problems, often in the absence of social support, and that the more severe and chronic the stressor, the greater the alcohol consumption and the risk for attempted suicide.

One of the key findings in this study is that depression is significantly related to suicidal attempt. Hence efforts must be taken to probe and establish the possible comorbidity of depression among alcohol dependents. Treatment and management of patients with alcohol dependence and concomitant suicidal attempts is crucial, as is the recognition of these patients in emergency and other health care service contacts. The treatment strategies must be based on current knowledge of risk factors for suicidal behaviour efficacy of treatment for alcohol dependence or relevant co-morbid conditions and problems known to be common in treatment settings.

Hence the following principles are suggested in the management of alcohol dependent individuals: (i) suicidal threats or communication by alcohol-dependent individuals in emergency and other contacts should be viewed seriously. (ii) Possibility of comorbid depression should be well evaluated, a consequent treatment plan initiated and follow-up arranged. (iii) Appropriate pharmacological treatment should focus on reducing the amount of drinking. (iv) Known epidemiological and clinical risk factors, adverse life events in particular, should be recognized and taken into account.

CONCLUSION: This study concluded that the risk factors among male alcohol dependents who attempt for Suicide are:

- Poor educational status – (up to primary school completion) individuals are at higher risk.
- Persons who are in joint families are at higher risk than nuclear families.
- Higher degree of dependence is also a risk factor for suicide among male alcohol dependents.
- Stressful life events (family conflict, financial loss, unfulfilled commitments).
- Co – morbid depressive disorder is one of the major risk factor in the study.
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AUTHORS:
1. Dr. C. Arun Prasanna
2. Dr. R. Gandhibabu
3. Dr. M. Asok Kumar

PARTICULARS OF CONTRIBUTORS:
1. Post Graduate, Department of Psychiatry, Rajah Muthiah Medical College, Annamalai University, Chidambaram.
2. Professor & HOD, Department of Psychiatry, Rajah Muthiah Medical College, Annamalai University, Chidambaram.
3. Professor, Department of Psychiatry, Rajah Muthiah Medical College, Annamalai University, Chidambaram.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:
Dr. C. Arun Prasanna,
8A, Mother Rose Colony,
Madurai-625018,
Opposite Fatima College,
Tamil Nadu.
Email: docpras@gmail.com

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