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Psychiatric Comorbidity Among Suicide Attempters

Dr .J. Reuben1*,Dr.R.T.Kannapiran[2], Dr.G.Ambujam[3], Dr.Rupinder Ghill[4], Dr.Mukil Sakthi[5]

[1]Department of Psychiatry, Vinayaga Mission Medical College and Hospital, Karaikal, Pondicherry, India

[2]Department of Psychiatry, Vinayaga Mission Medical College and Hospital, Karaikal, Pondicherry, India

[3]Dean, Department of Surgery, Vinayaga Mission Medical College and Hospital, Karaikal, Pondicherry, India

[4]Department of Psychiatry, Vinayaga Mission Medical College and Hospital, Karaikal, Pondicherry, India

[5]Department of Psychiatry, Vinayaga Mission Medical College and Hospital, Karaikal, Pondicherry, India

reubenkkl@gmail.com

LIST OF ABBREVIATIONS USED

ANOVA	Analysis of Variance
DSM-IV^{TR}	Diagnostic and Statistical Manual of Mental Disorders, Text Revision of Fourth edition.
HAM-A	Hamilton Anxiety Rating Scale
HAM-D	Hamilton Depression Rating Scale
ICD-10	International Classification of Diseases, Tenth Edition.

Abstract: ***Attempted suicide is a common clinical problem in general hospitals. Psychiatric disorders are at increased risk for suicide. There are few case-control studies on attempted suicide in India. The aim of the study is to find out the prevalence and comorbidity of psychiatric disorders in survivors following their first suicide attempt.100 consecutive cases of first suicide attempters (Group-I) were compared with an equal number of randomly selected controls (Group-II), matched for age and sex. Variables related to socio-demographic characteristics, family background, stressful life events, psychiatric morbidity and comorbidity were analyzed. The two groups were compared using appropriate statistical measures. No significant difference in socio-demographic details was observed between the two groups except for education, which was significantly lower in the cases compared to controls. Interpersonal problems with a significant person (46%) were the most frequent reason attributed by the suicide attempters. Suicide attempters had significantly more undesirable and ambiguous life events compared to the controls. Those who made serious suicide attempt had significantly more undesirable life events in the past six months. Most common diagnostic***

categories were mood disorders. Group-I had higher psychiatric morbidity compared to group-II, comorbidity of psychiatric disorders (51.6% v. 19.5%). Individuals who made first suicide attempt had lower educational achievement; more undesirable and ambiguous life events; high prevalence of psychiatric morbidity and comorbidity of severe depression and anxiety in comparison to the controls.
Keywords: Attempted suicide; comorbidity; psychiatric disorders; stressful life events.

LIST OF TABLES

INTRODUCTION

Durkheim proposed the definition of suicide as "death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result". Durkheim used this definition to separate true suicides from accidental deaths. He then collected several European nations' suicide rates, which proved to be relatively constant among those nations and among smaller

demographics within those nations.[1] Because depressed persons perceive the departed love object as having abandoned them, feelings of hatred and anger are intermingled with feelings of love. Freud suggested that ambivalence involving the coexistence of love and hate is instrumental in the psychodynamics of depression. As a result of introjection of the lost object, the negative part of the depressed patient's ambivalence—the hatred and anger—is directed inward and results in the pathognomonic picture of self-reproach. In that manner a suicidal act may have the unconscious meaning of murder.[2] Sifneos et al classified the reasons of suicide attempt into two major headings: unpleasant emotional condition of being in painful states and reactions which are defense mechanisms. The interaction of these two creates a state of mind as seen in neurotics about to commit suicide. This they designated as "autoknotism". [3] In the last half of the century, suicide rates have increased by about 60%.[4]Prevalence rates of comorbid psychiatric disorders in suicide attempters have ranged from 7%[5] to 82%.[6] There is paucity of case-control studies with regarding to psychiatric disorders in suicide attempters, especially in Indian context.[5] Therefore a case-control study of prevalence and comorbidity of psychiatric disorders in survivors following their first suicide attempt is justified. Study of socio-demographic variables and life events in these cases helps in understanding attempted suicides and management.

Hence a case-control study of prevalence and comorbidity of psychiatric disorder in survivors following their first suicide attempt in a general hospital along with socio-demographic variables and life events was planned. Objective of the study is to find out the prevalence of the comorbidity of psychiatric disorders in survivors following their first suicide attempt with the control group.

NULL HYPOTHESIS

There is no increased prevalence and comorbidity of psychiatric disorders in survivors following their first suicide attempt compared to Age , Sex matched controls.

METHODOLOGY

The current study is a cross-sectional, hospital based, case-control study. Sample for the current study was drawn from patients who had attempted suicide and were referred to the Psychiatric services at the Vinayaka Mission's Kirupananda Variyar Medical College, Salem. Controls were selected from the general population. This study was conducted at the above mentioned hospital, which is the largest in the district of Salem. From the above sources, all consecutive cases attending out- patient Department of Psychiatry, who fulfilled the inclusion criteria and did not get excluded, were selected for the current study.

CRITERIA FOR SELECTION OF THE SAMPLE:

GROUP- I: (Annexure -I)

INCLUSION CRITERIA:

1. Age between 18-55 yrs.
2. Both sexes.
3. First suicide attempt.
4. First Psychiatric consultation.

EXCLUSION CRITERIA:

1. Past history of attempted suicide.
2. Past history of psychiatric and/or personality disorders.
3. Mental retardation.
4. Chronic and disabling medical illnesses such as epilepsy, hypertension, diabetes mellitus, chronic infectious diseases (like tuberculosis, STDs, HIV, etc), cases of organic psychoses or any established medical illnesses for more than 2 years.

Ethical Committee of the institution approved the study Protocol.

Informed Consent was obtained from all participants.

In the current study, following tools and sources of information were used for collecting the required data

1. Hamilton Depression Rating Scale (HAM-D).[7]
2. Hamilton Anxiety Rating Scale (HAM-A).[8]
3. Presumptive Stressful Life Events Scale (PSLES) by Singh et al.[9]

STATISTICAL ANALYSIS:

Data has been analyzed using Statistical Package for the Social Sciences (SPSS) latest version for Windows.[10] Inter-group comparisons were performed using parametric (Student's t-test, one-way ANOVA, Pearson's Correlation test) and non-parametric tests (Chi-Square test).Means of quantitative (continuous or numerical) data were analyzed using independent Student's t-test

Statistical significance was set at $P < 0.05$

RESULTS

A total of 200 subjects were included in this study. They were divided into two groups as group-

I (suicide attempters) and group-II (controls) of 100 subjects each. Data has been analyzed using Statistical Package for the Social Sciences (SPSS) version 10.0 for Windows.
Results of the study have been analyzed under the following headings:

Socio-demographic data of case and control groups.
Hamilton Depression Rating scale analysis of both groups.
Hamilton Anxiety Rating scale analysis of both groups.
Presumptive Stressful Life Events scale analysis of both groups.

TABLE – 1: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Characteristics		Group-I (N=100)	Group-II (N=100)	Statistical analysis (P < 0.05)
Age in years	Mean and S.D	27.31 ± 8.68	27.7 ± 8.58	t=0.32; df=198; Not significant
	≤ 20	23	20	χ^2=0.28; df=3; Not significant
	21 – 30	53	55	
	31 – 40	13	14	
	≥ 41	11	11	
Sex	Male	52	52	χ^2=0; df=1; Not significant
	Female	48	48	
Place	Rural	79	67	χ^2=3.65; df=1; Not significant
	Urban	21	33	
Religion	Hindu	95	95	χ^2=0; df=1; Not significant
	Muslim	5	5	
Education	Mean and S.D	8.69 ± 4.28	9.42 ± 5.55	t=1.042; df=198; Not significant
	Illiterate	9	16	χ^2=7.98; df=2; Significant
	< 10^{th} class	42	24	
	≥ 10^{th} class	49	60	
Occupation	Semi-skilled	18	22	χ^2=8.24; df=4; Not significant
	Skilled	28	20	

	Professional	19	20	
	Student	10	22	
	Household	25	16	

Socioeconomic Status	Class – I	15	25	χ^2=3.48; df=4; Not significant
	Class – II	19	15	
	Class – III	22	18	
	Class – IV	25	25	
	Class – V	19	17	
Marital status	Unmarried	47	51	χ^2=0.32; df=1; Not significant
	Married	53	49	
Family type	Nuclear	49	52	χ^2=1.42; df=1; Not significant
	Extended	18	12	
	Joint	33	36	

(Figures same as percentages)

Majority of the suicide attempters belonged to 21-30 years age group. Age variable was well matched amongst the two groups. Two-thirds of suicide attempters were aged between 21-40 years. Mean age of the study sample was 27.31 ± 8.68 years, with that of males and females being 29.21 ± 8.72 years and 25.25 ± 8.22 years respectively. Gender of the subjects was evenly distributed across the groups and thus was well matched between the two groups.

TABLE – 2: COMPARISON OF PRESUMPTIVE STRESSFUL LIFE EVENTS SCALE IN GROUP-I AND GROUP-II

Score of life events (Mean and S.D.)		Group-I (N=100)	Group-II (N=100)
Total	< 6 months	331.1±142.4*	112.2±97.05*
	< 1 year	386.3±148.2**	133.4±104.6**
Undesirable	< 6 months	282.1±124.8*	80.88 ± 89.18*
	< 1 year	326.2±131.1**	96.1 ± 98.17**

Desirable	< 6 months	16.68±29.89*	26.13 ± 37.24*
	< 1 year	26.98±39.59	30.9 ± 40.71
Ambiguous	< 6 months	32.27±36.72*	6.06 ± 18.88*
	< 1 year	33.84±40.37**	6.39 ± 19.06**

* = comparison of life event scores occurring within 6 months between the groups.

** = comparison of life event scores occurring within 12months between the groups.

Mean scores of total, undesirable and ambiguous life events during past six months and past one year were significantly higher among the suicide attempters compared to the controls. Mean scores of desirable life events was significantly higher among the controls during the past six months compared to the suicide attempters.

Accumulation of 300 or more life events scores during past one year increases the risk of suicide.

TABLE – 3: COMPARISON OF HAM-D, HAM-A SCORES IN GROUP-I AND GROUP-II

Rating scale	Group-I (N=100)	Group-II (N=100)	Statistical analysis
HAM-D score: Mean and S.D	16.21 ± 6.79	3.89 ± 4.47	t=15.15; df=198; Significant
HAM-D score < 14 (normal to mild)	40	95	χ^2= 68.95; df=1; Significant
HAM-D score ≥ 14 (moderate to very severe)	60	5	
HAM-A score: Mean and S.D	10.97 ± 7.01	4.83 ± 5.41	t=6.93; df=198; Significant
Clinical anxiety:			
Present (>14)	24	9	χ^2=8.17; df=1;
Absent (≤ 14)	76	91	Significant

Mean HAM-D score was high in the group-I than in the group-II and the difference was statistically significant. Majority of the group-I subjects had moderate to

very severe depression scores compared to group-II subjects who had normal (79%) to mild depression scores (16%).

Mean HAM-A score was high in the group-I than in the group-II and the difference was statistically significant. 24% of the group-I subjects had clinical anxiety compared to 9% in the group-II subjects and the difference was statistically significant.

DISCUSSION:

Suicide Attempt and Presumptive Stressful Life Events;

In our study, 46% of the patients reported interpersonal conflicts (marital discord, family discord or dispute, broken love affairs, notable quarrel or scolding, rejection) with significant persons like father, mother, brother, spouse, son and in-laws, as the precipitant cause for their suicide attempt. This is in accordance with many Indian and Western studies as follows;

Badrinarayana noted that the most common causes for suicidal attempt were disruption of relationship with key figure, high degree of disharmony with spouse, quarrel with girlfriend, and rejection. Ill treatment or lack of care by their husbands or mother-in-law, disappointment in love was also reported.[11]

Ponnudurai et al studied 86 suicide attempters and found notable quarrel and scolding by significant others as most frequent stressors in 25.58% of cases. Among females, 5% cases attempted suicide following family quarrel with their fathers who had alcohol dependence, 13.9% due to marital maladjustment, of which 5.26% due to maladjustment with their husbands who had alcohol dependence.[12]

Chowdhary et al studied pesticide poisoning in 5178 non-fatal deliberate self-harm cases for 3 years, and noted that various psychosocial stressors, especially among young married females, such as demands for dowry, torture, mental and physical humiliation by the in-laws, derogatory behavior by alcoholic husbands or emotional or economic distress resulting from extra-marital relations of the husbands were positively linked with suicidal behavior. On the other hand love affairs was more common causes in males inflicting deliberate self-harm.[13]

Latha et al reported life events in 90% cases, with interpersonal problems (marital difficulties, conflicts with key family members, and failure in love affairs) being most common cause for suicide attempt.[14]

In a case-control psychological autopsy, more life events had been experienced in the last year with higher weighted stress by the suicide group.[15]

Paykel and Dowlatshahi also reported more subjects with suicide than controls have experienced adverse life events before the act.[16]

In a study from New Haven, it was reported that the circumstances surrounding a suicide attempt invariably involved recent life event change, particularly interpersonal stress.[17]

Morgan et al assessed 368 patients who presented following some form of deliberate self-harm found interpersonal conflicts (51%) as most common precipitant for the act.[18]

In summary, interpersonal conflicts is the most frequent stressors among suicide attempters.

A higher prevalence of interpersonal problems than current study (62.6%,[19] 64%,[20] 100%[21]) was reported in some studies as well.

In our study, we found out the mean life event scores of undesirable, ambiguous and total life events during past six months and past one year were

significantly greater in the group-I compared to group-II. The mean scores of desirable life events were significantly greater in the group-II during the past six months compared to the group-I subjects.

In a case-control study of suicide attempters, a significant association was found with recent stressful life events being at high risk for suicide attempt, with more cases than controls having experienced more undesirable life events during the previous six months.[22] Our study is in agreement with the finding.

Suicide Attempters and Psychiatric Disorders;

Our study findings are in accordance with the Indian and Western studies on both attempted and completed suicide that have reported depressive disorders and anxiety disorders as being most frequent psychiatric diagnosis as follows;

The acute suicidal episode is superimposed upon the pre-existing or concurrent psychiatric illness, particularly depression and anxiety. The episode is often precipitated by psychosocial life events. Although depressive symptoms are almost always present, far more important with regard to the suicidal intent are feelings of despair, pessimism, hopelessness, and helplessness. The individual is preoccupied in a conscious psychological state by the wish to be dead and by the intent to commit suicide.[23]

Badrinarayana noted 65.2% cases having a psychiatric diagnosis, with depression in 48% being most frequent.[11]

Morgan et al assessed 368 patients who presented following some form of deliberate self-harm. 90% were considered to have some form of mental illness, of which neurotic depression (52%) being most common.[18]

Urwin and Gibbons studied 539 patients with self-poisoning of which 70% had some psychiatric disorders; with depression (60%).

Roy and Chir studied 243 patients with a family history of suicide, of whom 48.6% had attempted suicide. Of these cases, 56.4% had a depressive disorder and 34.6% had recurrent depressive disorder.[24]

In a case-controlled, psychological autopsy study on suicide by Lesage et al, 75 men aged 18-35 years who had completed suicide were matched to 75 living young men for age, neighbourhood, marital status, and occupation. Overall depressive spectrum disorders were noted in 60% suicides and 14.7% in comparison group. Major depression was present in 38.7% and 5.3%.[15]

Suominen et al reported that 98% of suicide attempters had one or more psychiatric diagnoses and in only one case no diagnosis could be made. Depressive disorders were the most common disorders. Major depression was diagnosed in 38% of cases and depressive syndrome was diagnosed in 75% of cases. .[25]

In a case-control study by Beautrais et al, 90.1% of those who made serious suicide attempt had a mental disorder at the time of the attempt. Of these, 76.8% had mood disorders (61.9% major depression),26.8% had anxiety disorders (phobic disorder 15.9%, panic disorder 10.9%).

In a case-control study by Johnson et al, suicide attempters were more likely to have affective disorders than the controls. Affective disorder was present in 72.6% of attempters and 41.4% of controls, with major depression (61.3% v. 35.7%) being most frequent.[26]

Haw et al reported that 92% of the sample had at least one psychiatric disorder at the time of the index attempt. 72% had affective disorder, with 70.7% having depressive episodes. However, depressive spectrum disorders were present in 78%. .[27]

Verona et al in an epidemiological study reported internalizing disorders such as major depression (24.3% v. 4.7%), and panic disorder (14.7% v. 1.9%) more prevalent in attempters compared to the non-attempters.

Oquendo et al studied 314 subjects aged between 18-75 years, and opined that higher prevalence of suicide attempts in depressed women may be due to the earlier onset of depression among women, perhaps hampering the development of coping skills and rendering them more vulnerable to suicidal behaviour. Women with more subjective depression were more likely to engage in suicidal behaviour.[28]

To summarize, majority of the suicide attempters have at least one psychiatric disorder, with major depression and adjustment disorder in decreasing order, being most frequent.

In our study, the severity of depression was assessed using HAM-D. There was no depression in 10%, it was mild in 30%, moderate in 21%, severe in 19% and very severe in 20% of group-I compared to 79% with no depression, 16% mild and 5% moderate with none having severe or very severe depression in the group-II.

In our study we found Mean HAM-A score was high in the group-I than in the group-II and the difference was statistically significant. 24% of the group-I subjects had clinical anxiety compared to 9% in the group-II subjects and the difference was statistically significant.

However, few studies have reported lower prevalence of psychiatric disorders in attempted suicide as 11.6%,[22] 16.3%,[29] 31.3%,[30] 47.2%,[5,31] 57%,[32] and 62%.[33] However, most of these studies were done prior to publication of DSM-IV or ICD-10, except for some studies.[22,5,32] So there could be under-representation of psychiatric disorders as these studies did not utilize structured clinical interviews based on DSM-IV or ICD-10 diagnostic criteria. The current study has well addressed this issue using structured clinical interview like MINI-Plus.

From above discussion, it appears that the findings of this study are consistent with most of the previous researches carried out in this area. Suicide attempters had more undesirable and ambiguous life events and also severe depression and anxiety compared to the controls.

Strengths of the Study include that the study has adopted structured interview method for identifying psychiatric and personality disorders. Structured interviews using valid and reliable diagnostic instruments increased the comprehensiveness of the psychiatric diagnosis. Limitations of the study include that the Cases of first suicide attempt were taken to reduce probable higher prevalence of psychiatric morbidity.

CONCLUSION

In conclusion, Suicide attempters had higher total, undesirable, and ambiguous life events in the past six months and one year of frequent interpersonal problems. Hence efforts must be made to teach coping techniques to the general population, whenever possible with whatever means possible as in the schools and through media.

This study has found that suicide attempters had higher psychiatric morbidity in the form of major depression and anxiety in comparison to the controls. Hence it is useful to screen for psychiatric disorders, and comorbidity in suicide attempters as this has treatment implications like counseling, psychotherapy, pharmacotherapy and treatment outcomes.

Most of the suicide attempters seek help from general practitioners. Therefore there is a need to sensitize this section of medical professionals regarding suicide prevention and assessment of psychiatric morbidity and suicide risk.

Future research is needed to address the issues of comorbidity, especially in the Indian context where very few studies have dealt in this area.

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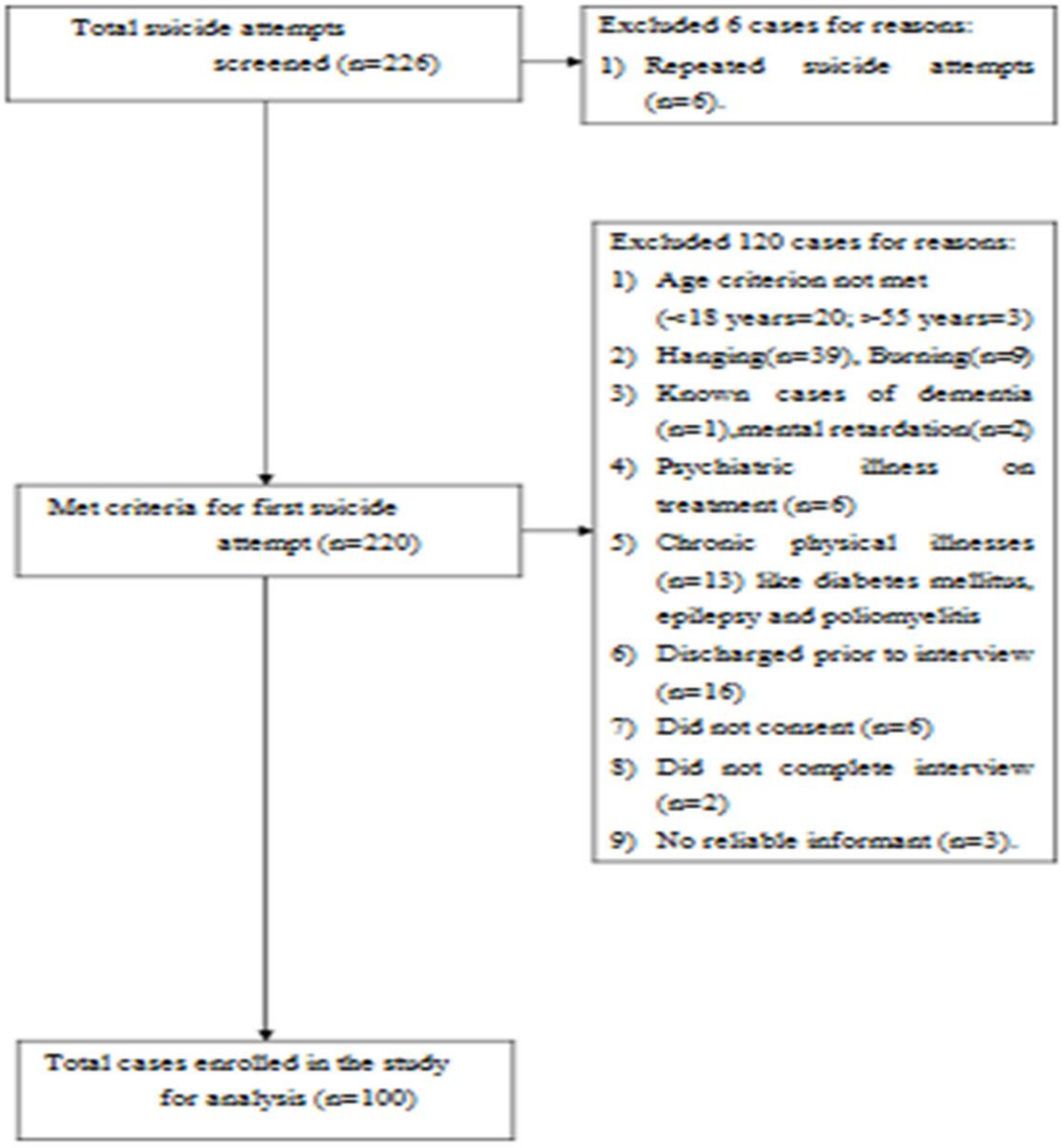
ANNEXURE-I

Schematic representation of group-I subjects included in the study.



ANNEXURE-II

CONSENT

I ..... aged…....yrs, sex…..., working a S

…… have voluntarily agreed to participate as a **case** subject in the study- "**Psychiatric Comorbidity Among Suicide Attempters**." I have been explained about the nature of the study and all the attendant consequences of participation in the study. I understand that I may refuse to give consent without my treatment being affected in any manner.

DATE: SIGNATURE OF THE PATIENT.

CONSENT

I ..... aged……yrs, sex….., working As

…… have voluntarily agreed to participate as a **control** subject in the study- "**Psychiatric Comorbidity Among Suicide Attempters**" I have been explained about the nature of the study and all the attendant consequences of participation in the study. I understand that I may refuse to give consent without being affected in any manner.

DATE: SIGNATURE

ANNEXURE-III

GENERAL INFORMATION SHEET

CASE / CONTROL NO. : _____

O. P . / I. P . NO . : _____

Name:

Age:

Sex: Male / Female

Place: Rural / Urban

Address:

Religion: Hindu / Muslim / Others

Education: Nil / Up to 9 th / SSLC / PUC / Diploma / Graduation / Post - graduation

Occupation: Unemployed / Student / House -hold / Agriculture / Coolie / Business / Employed - Govt . / Factory / Private / Professional / Others _____

Referral: Self/Friends/Relative / G . P / Other Dept . / Knowledge of other patients treated . (CASES ONLY)

Informant: Self/ Parents (F/M) / Sibs (B/S) / Spouse (H/W) / Relatives/Friends/ Others _____ . (CASES ON LY)

Marital Status: Single / Married / Separated / Divorced / Widow(er) . T ype of Famil y:

Nuclear / Joint / Extended .

Number of Persons in Family: ____ Adults; ____ Children; ____ Total Living Arrangement:

Alone / Friends / Hostel / Home / Relatives house

/ Others _____

Socio - Economic Data:

Sl . No	Name	Age/Sex	Occupation	Monthl y Income
1 . 2 . 3 . 4 .				

TOTAL =

Total Income
Per Capita Income = ---------- = Rs . _____
Number of People

AICPI (November 2006) = Rs. 494. Correction factor = 4.93 x 494/100 = 24.35

CLASS	1961 Per-capita income (in rupees)	2006 Per-capita income (in rupees)
I	≥ 100	≥ 2435
II	99 – 50	1217 – 2434
III	49 – 30	730 – 1216
IV	29 – 15	365 – 729
V	< 15	≤ 364

Impression = Class I / II / III / IV / V.

History of Substance abuse: No / Yes, specify_____

(Cases only, controls only nicotine allowed) Family history of

Mental Illness: No / Yes, specify_____

Family history of Substance abuse: No / Yes, specify_____

Family history of Attempted Suicide: No / Yes, specify_____

Family history of Completed Suicide: No / Yes, specify_____

AN NE XU RE-IV

DETAILS OF SUICIDAL ATTEMPT

Days taken to stabilize medically prior to psychiatric referral: _____

Site : _____ .

Method used : Poison / Drugs / Cut / Drown

Substance used: _____

Associated with Alcohol use: No / Yes .

Reason attributed by patient: Physical / Psychological / Interpersonal / Major Life Event / Financial / Accident / No reason .

Reason attributed by informant: Physical / Psychological / Interpersonal / Major Life Event / Financial / Accident / No reason . Help/Advice sought for preceding distress: No / Yes, specify_ _____

Suicidal note: No / Yes .

History of prior suicidal ideas: No / Yes, specify duration _____ . Persistent suicidal ideas during hospitalization: No / Yes .

Need for the mechanical ventilator support: No / Yes, specify duration _____ .

Days of stay: ICU____ / Emergency____ / General ____ / Total ____ . Complications (if any, specify): _____ .

ANNEXURE-VII

HAMILTON RATING SCALE FOR DEPRESSION

For each item select the score which best characterizes the patient.

1: Depressed Mood (Sadness, hopeless, helpless, worthless)

0 Absent
1 These feeling states indicated only on questioning
2 These feeling states spontaneously reported verbally
3 Communicates feeling states nonverbally- i.e. through facial expression, posture, voice, and tendency to weep
4 Patient reports virtually only these feeling states in his spontaneous verbal and nonverbal communication

2: Feelings of Guilt

0 Absent
1 Self-reproach, feels he has let people down
2 Ideas of guilt or rumination over past errors or sinful deeds
3 Present illness is a punishment. Delusions of guilt
4 Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations

3: Suicide

0 Absent
1 Feels life is not worth living
2 Wishes he were dead or any thoughts of possible death to self
3 Suicide ideas or gesture
4 Attempts at suicide (any serious attempt rates 4)

4: Insomnia early

0 No difficulty falling asleep
1 Complains of occasional difficulty falling asleep – i.e. $\geq$ 15 MINUTES
2 Complains of nightly difficulty falling asleep

5: Insomnia middle

0 No difficulty
1 Patient complains of being restless and disturbed during the night
2 Waking during the night—any getting out of bed rates 2 (except for purpose of voiding)

6: Insomnia late

0 No difficulty
1 Waking in early hours of the morning but goes back to sleep
2 Unable to fall asleep again if gets out of bed

7: Work and activities

0 No difficulty
1 Thoughts and feelings of incapacity, fatigue or weakness related to activities, work, or hobbies
2 Loss of interest in activity, hobbies, or work—eith er directly reported by patient, or indirect in listlessness, indecision and vacillation (feels he has to push self to work or activities)
3 Decrease in actual time spent in activities or decrease in productivity. In hospital, rate 3 if patient does not spend at least 3 hours a day in activities (hospital job / hobbies) exclusive of ward chores
4 Stopped working because of present illness. In hospital, rate 4 if patient engages in no activities except ward chores, or if patient fails to perform ward chores unassisted

8: Retardation (Slowness of thought and speech; impaired ability to concentrate; decreased motor activity)

0 Normal speech and thought
1 Slight retardation at interview
2 Obvious retardation at interview
3 Interview difficult
4 Complete stupor

9: Agitation

0 None
1 "Playing with" hands, hair, etc.
2 Hand-wringing, nail biting, hair pulling, biting of lips

10: Anxiety psychic

0 No difficulty
1 Subjective tension and irritability
2 Worrying about minor matters
3 Apprehensive attitude apparent in face or speech
4 Fears expressed without questioning

11: Anxiety somatic

0	Absent	Physiological concomitants of anxiety, such as:
1	Mild	Gastrointestinal—dry mouth, wind, indigestion, diarrhoea, cramps, belching
2	Moderate	Cardiovascular—palpitations, headaches
3	Severe	Respiratory—hyperventilation, sighing
4	Incapacitating	Urinary frequency; Sweating

12: Somatic symptoms gastrointestinal

0 None
1 Loss of appetite but eating without staff encouragement. Heavy feelings in abdomen
2 Difficulty eating without staff urging. Requests or requires laxatives or medication for bowels or medication for G.I. symptoms

13: Somatic symptoms general

0 None
1 Heaviness in limbs, back or head, backache, headache, muscle aches, Loss of energy & fatigability
2 Any clear cut symptom rates 2

14: Genital symptoms

0	Absent	Symptoms such as:
1	Mild	Loss of libido
2	Severe	Menstrual disturbances

15: Hypochondriasis

0 Not present
1 Self-absorption (bodily)
2 Preoccupation with health
3 Frequent complaints, requests for help, etc
4 Hypochondriacal delusions

16: Loss of weight

A: When rating by history 0 No weight loss
1 Probable weight loss associated with present illness
3 Definite (according to patient) weight loss

B: On weekly ratings in wards, when actual weight changes are measured 0 Less than 1 lb weight loss in week
1 Greater than 1 lb weight loss in week
2 Greater than 2 lb weight loss in week

17: Insight

0 Acknowledges being depressed and ill
1 Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, etc
2 Denies being ill at all

SCORE: ≤ 7 = Normal
8-13 = Mild
14-18 = Moderate

19-22 = Severe

≥ 23 = Very Severe

ANNEXURE-VIII

HAMILTON RATING SCALE FOR ANXIETY (HAM-A)

Instructions: This checklist is to assist the physician or psychiatrist in evaluating each patient as to his degree of anxiety and pathological condition. Please fill in the appropriate rating:

None = 0 Mild = 1 Moderate = 2 Severe = 3 Very severe, grossly disabling = 4 Score above 14 is Clinical Anxiety.

Sl.no.	Item	Characteristics	Rating
1.	Anxious mood:	Worries, anticipation of the worst, fearful anticipation, irritability	
2.	Tension:	Feelings of tension, fatigability, startle response, moved to tears easily, trembling, feelings of restlessness, inability to relax.	
3.	Fears:	Of dark, of strangers, of being left alone, of animals, of traffic, of crowds.	
4.	Insomnia:	Difficulty in falling asleep, broken sleep, unsatisfying sleep and fatigue on waking, dreams, nightmares, night-terrors.	
5.	Depressed mood:	Loss of interest, lack of pleasure in hobbies, depression, early waking, diurnal swing.	
6.	Intellectual (cognitive):	Difficulty in concentration, poor memory.	
7.	Somatic (muscular):	Pains and aches, twitching, stiffness, myoclonic jerks, grinding of teeth, unsteady voice, increased muscular tone.	
8.	Somatic (sensory):	Tinnitus, blurring of vision, hot and cold flushes, feelings of weakness, pricking sensation.	
9.	Cardiovascular symptoms:	Tachycardia, palpitations, chest pain, throbbing of vessels, fainting feelings, missing beats.	

10.	Respiratory symptoms:	Pressure or constriction in chest, choking feelings, sighing, dyspnea.	
11.	Gastrointestinal symptoms:	Difficulty in swallowing, wind, abdominal pain, burning sensations, abdominal fullness, nausea, vomiting, borborygmi, looseness of bowels, loss of weight, constipation.	
12.	Genitourinary symptoms:	Frequency of micturition, urgency of micturition, amenorrhea, menorrhagia, Development of frigidity, premature ejaculation, loss of libido, impotence.	
13.	Autonomic symptoms:	Dry mouth, flushing, pallor, tendency to sweat, giddiness, tension headache, raising of hair.	
14.	Behavior at interview:	Fidgeting, restlessness or pacing, tremor of hands, furrowed brow, strained face, sighing or rapid respiration, facial pallor, swallowing, belching, brisk tendon jerks, dilated pupils, exophthalmos.	

ANNEXURE-IX

GURMEET SINGH'S PRESUMPTIVE STRESSFUL LIFE EVENTS SCALE

(PSLE)

Sl. No.	LIFE EVENTS	Score	< 6 months	< 1 year	Life-Time
1	Death of spouse	95			
2	Extramarital relations of spouse	80			
3	Marital separation or divorce	77			
4	Suspension or dismissal from job	76			
5	Detention in jail of self or close family Member	72			
6	Lack of child	67			
7	Death of close family member	66			
8	Marital conflict	64			
9	Property or crops damaged	61			
10	Death of friend	60			
11	Robbery or theft	59			
12	Excessive alcohol or drug use by family Member	58			
13	Conflict with in laws (other than over dowry)	57			
14	Broken engagement or love affair	57			
15	Major personal illness or injury	56			
16	*Son or daughter leaving home*	*55*			
17	Financial loss or problems	54			
18	Illness of family member	52			
19	Trouble at work with colleagues, superiors or Subordinates	52			
20	*Prophecy of astrologer or palmist etc*	*52*			
21	**Pregnancy of wife (wanted or** unwanted**)**	**52**			
22	Conflicts over dowry (self or spouse)	51			
23	Sexual problems	51			

24	Self or family member unemployed	51
25	Lack of son	51
26	Large loan	49
27	**Marriage of daughter / dependant sister**	**49**
28	*Minor violation of law*	*48*
29	Family conflict	47
30	Break-up with friend	47
31	**Major purchase or construction of house**	**46**
32	Death of pet	44
33	Failure in examination	43
34	**Appearing for an examination/interview**	**43**
35	**Getting married or engaged**	**43**
36	*Trouble with neighbour*	*40*
37	*Unfulfilled commitments*	*40*
38	**Change in residence**	**39**
39	**Change or expansion of business**	**37**
40	**Outstanding personal achievement**	**37**
41	*Begin or end schooling*	*36*
42	*Retirement*	*35*
43	*Change in working conditions or transfer*	*33*
44	Change in sleeping habits	33
45	Birth of daughter	30
46	**Gain of new family member**	**30**
47	*Reduction in number of family functions*	*29*
48	Change in social activities	28
49	Change in eating habits	27
50	*Wife begins or stops work*	*25*
51	**Going on a pleasure trip or pilgrimage**	**20**

UNDESIRABLE =

DESIRABLE =

AMBIGUOUS =

TOTAL SCORE =