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PERSONALITY CHARACTERISTICS AMONG SUICIDE ATTEMPTERS COMING TO A TERTIARY HOSPITAL

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ABSTRACT **Background and Objectives:** The most relevant and overlooked consideration in the worldwide effort to end suicide is the role of maladaptive personality or the presence of dysfunctional personality disorder. Understanding the presence and influence of personality disorders and pathological personality trait is essential for the identification of patients who are at high risk for suicidal behaviour and may also be helpful in the development of individualized treatment strategies**.** Our objectives were to study the type of personality disorder of ICD 10 personality disorders commonly associated with suicide attempt and to find out the association between psycho-socio-demographic factors and personality among suicide attempters.

Methods: Total 100 consenting patients with H/O single attempt between 18-55 age group and with a h/o attempted suicide were chosen. Data about Socio-demographic profile of these patients was collected in a semi-structured pro forma along with M.I.N.I. scale, Beck's Suicide Intent scale and subsequently I.P.D.E. Screening Questionnaire and further questioning based on ICD-10.

Results : The cases consisted of individuals with a mean age of 29.1years, 59% males,83% of Hindus, 61% of married individuals 35% unmarried, 3% separated,6% having past psychiatric illness, mainly, adjustment disorder (20%) and 8% with a family history of suicide, 23% with a physical illness with 7% epileptic. Personality disorders are implicated with increased frequency of attempts main characteristic being impulsivity. Dependent personality disorder were seen in 43% of the individuals along with other personality disorder and 5% in its pure form. Multiple personality disorders were present in most individuals (67%).

Conclusion: Impulsive and dependant personality disorders were more with suicide attempters .Multiple personality disorder were observed to be present in most patients.

KEYWORDS : Suicide, Suicidal behaviour, Impulsivity, Personality,

INTRODUCTION

Suicide is a conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which suicide is perceived as best solution. Suicidal Act, Attempt and Intent have different definitions [1,2]. It also is important to distinguish between self-injury with intent to die (suicidal self-injury) and self-injury with no intent to die (non-suicidal self-injury); Some researchers and clinicians dislike the term "gesture," holding that it denotes that an individual intends to "manipulate" others [3,4].

Suicide is thought to kill about 1 million people a year. Out of the number that attempt suicide 1 in 10 to 1 in 20 succeeds [5]. The WHO reports that one death occurs every 40 seconds, worldwide. It is predicted that by 2020, the rate of death will increase to one every 20 seconds. Added to this, data from CDC report – 2010 suggested that more than 2 million adults reported thinking about suicide [6].

It is estimated that a median of between 6 and 32 survivors exist for each suicide, depending on the definition used [7]. Surviving the loss of loved one to suicide is a risk factor for suicide [8]. Surviving family members and close friends are deeply impacted by each suicide, and experience a range of complex grief reactions including, guilt, anger, abandonment, denial, helplessness, and shock [9].

In India, it is estimated that over 100000 people die by suicide every year i.e. > 10% of suicides in the world and about 11.2 (per 100000 of population) in 2011 [10]. In India, suicide is the cause of about twice as many deaths as is HIV/AIDS and about the same number as maternal causes of death in young women though work done towards its prevention is meagre [11,12]. One in 60 persons is affected by suicide i.e. includes those who have attempted suicide and those who have been affected by the suicide of a close family or friend [13].

The term attempted suicide encompasses a wide variety of self-destructive behaviour, ranging from serious life threatening acts to relatively minor gestures primarily aimed at attracting attention [2]. Attempted suicide results due to a complex interaction of biological, genetic, psychological, social, cultural, and environmental factors [3]. The prevention of suicide is a national and international policy priority [4]. Personality disorders and their co-morbidity with other psychiatric conditions are risk factors for both fatal and nonfatal suicidal behaviors, and self-mutilation [5].

Personality of a person determines how a person will react in a stressful situation [7]. There are very few studies regarding prevalence of different types of personality disorder in suicide attempt patients. Our aim is to see the type of personality disorder most vulnerable to self-harm activity. Personality disorder studied previously were from the five factor models Attempted suicide, for the purpose of this study, was defined as "an act with non-fatal outcome in which an individual deliberately initiates a non-habitual behaviour, that without intervention from others will cause self-harm, or deliberately ingest a substance in excess of the prescribed or generally recognized dosage, and which aimed at realizing changes that the person desires via the actual or expected physical consequences"[8]. In this study, we aim to explore the type of personality disorder according to ICD 10 commonly associated with suicide attempt.

Methodology

This Cross-sectional study study was conducted at Victoria Hospital, Bangalore Medical College and Research Institute. Patients who attempt suicide were registered as medico legal cases and investigated by police as suicide is an offence under section 308 of IPS.

In the context of the study suicide was defined as an act, whether physical injury, drug over dosage or poisoning etc carried out in the knowledge that is was potentially harmful and in the case of drug over dosage , that the amount taken was excessive.

All suicide attempt cases brought to the emergency department were screened (keeping the inclusion-exclusion criterion in mind). After ethical approval total 100 consenting patients with history of

attempted suicide admitted for treatment or attending outpatient department from October 2014-May 2016 were enrolled in this study. Informed consent was taken from participants prior to start of study. Patients with 18- 55 years age and history of suicide attempt admitted to Victoria hospital and referred to psychiatry OPD were included and Patients who are physically ill due to the suicide attempt were excluded from the study.

Assessment

The semi-structured questionnaires were used for the socio-demographic characteristics, history of previous suicidal attempt, method of suicidal attempt, mental illness, purpose of suicidal attempt, impulsive suicidal attempt or with premeditative and presence of other known medical illness.

The Mini International Neuropsychiatric Interview version 5 (MINI PLUS) was used to evaluate the occurrence of an existing mental illness among the participants based on Diagnostic and Statistical Manual-IV edition (DSM-IV) [14].

With an administration time of approximately 15 minutes, it was designed to meet the need for a short but accurate structured psychiatric interview for multicentre clinical trials and epidemiology studies and to be used as a first step in outcome tracking in nonresearch clinical settings. The MINI Plus derived from MINI is more inclusive. It has 23 diagnoses. It features questions on rule outs, disorder subtyping and chronology. It also includes modules for somatization disorders, conduct disorder, attention deficit hyperactivity, adjustment disorder, Premenstrual Dysphoric Disorder, Mixed Anxiety-Depressive Disorder. It is still less complex than many longer interviews. Both current and lifetime diagnosis can be made. Validation and reliability studies have been done comparing the M.I.N.I. to the SCID-P for DSM-III-R and the CIDI (a structured interview developed by the World - 40 - Health Organization for lay interviewers for ICD-10). The results of these studies show that the M.I.N.I. has acceptably high validation and reliability scores, but can be administered in a much shorter period of time (mean 18.7±11.6 minutes, median 15 minutes) than the above referenced instruments. It can be used by clinicians, after a brief training session. Lay interviewers require more extensive training. Two parallel studies were conducted to test the validity of MINI at two sites, Florida University and National institute of mental health. MINI diagnoses were characterized by good and very good kappa value. Sensitivity was more than 0.70 for all except three diagnoses (Dysthymia, obsessive compulsive disorder and current drug dependence). Specificity and negative predictive value is more than 0.85 for all the diagnosis. There is excellent inter rater reliability as shown by good kappa values (0.75).

ICD10 International Personality Disorder Examination (IPDE) screening Questionnaire has a screener version for each module (ICD-10 and DSM-IV) named the IPDE-SQ, developed by the WHO. The ICD-10 version consists of 59 true/false items, each of which addresses one criterion from the nine PD found in the ICD-10. The DSM-IV version consists of 77 true/false items, each of which addresses one criterion from the ten PD found in the DSM-IV. In previous studies the IPDE-SQ has demonstrated a specificity rate of 61% in a nonclinical population [15]. The standard manual suggests that if three or more items of a disorder are positive, the subject has failed the screen for this disorder and should be interviewed [16,17]. This cut-off is taken into account as baseline cut-off. The screen is merely intended to exclude those unlikely to receive a diagnosis if interviewed, and thus save clinicians or researchers time for proceeding with the interview [A. W. Loranger, personal communication, February 3, 2012]. The dimensional score is calculated by counting the number of criteria met for each disorder, and thus contains more information than a diagnosis, which is only assigned when a minimum number of criteria have been met. In this study only the dimensional scores for PD disorder are used.

Beck's Suicide Intent Scale (SIS) was selected as the most appropriate research tool to quantify patient's subjective experience. This psychometric instrument was designed to record data regarding the intensity of the attempters wish to die at the time of the attempt (Beck et al 1974). Hawton (1989) has reviewed the reliability and validity of this rating scale and concluded that they are satisfactory [18]. The first section of the SIS relates to circumstantial evidence gathered from as many sources as possible to ensure validity. The second section concerns introspective data. There are fifteen questions which are scored 0, 1, and 2, the maximum score is 30.It is further categorised into those with High, Medium and Low Suicidal Intent. Part I (8 questions) examines factual aspects of the event such as location of the attempt and whether suicide note had been written. Part II (7 questions) investigates the patients's feeling and thoughts at the time of the act. It taps patient's perception of the model, lethality, concept of medical rescuability etc.

Pierce D.W. as done predictive validation of SIS. 500 patients who had completed SIS after self-injury were followed upto 5 yrs , 13 suicides occurred. Thus future suicides tended to have high scores on the scale of original self-injury episodes and had very high scores for the penultimate self-injury before suicide. The scale can be used as a predictor of suicide and was suggested that it can be used in suicide prevention programs [19].

In this study SIS was translated to local language (Kannada) as most of our subjects had little knowledge of English language. The translated version was retranslated to English 5 times by different groups of people and the most acceptable version was used in the study. The question in the scale was read out to the patient by the resident who chose the most appropriate statement in each category reflecting the patient's attitude at the time of the interview. Among literate subjects the translated copy of SIS- II was given and they were asked to read and mark their feelings in the copy.

Detail histories were taken from patients referred to Psychiatry OPD and family members. To screen for the personality disorder needing further confirmation, using ICD 10 International Personality Disorder Examination (IPDE) Screening Questionnaire and further questioning. The data were analysed using Microsoft Excel.

RESULTS

The age ranged from 18-55 years. The majority of cases were present in the age group of 26-55 years. Higher percentage of males featured in the sample than females. (M: F = 1.4:1). Hindus predominated among the sample. Most of the cases were married, 61% and unmarried were 35%. Separated were 3%and widow being 1%. Majority of Cases came from an uneducated backdrop. The past history of psychiatry illness, ADS and adjustment disorder was 3% and 2%. The frequencies of medical illness such as CVAEpilepsy hypothyroidism infertility and TB were 1%, 7%, 2%, 2% and 2%, respectively. Total 48% had no medical illness [Table 1].

The modes of suicide attempt are shown in Table 2. The frequencies of Tablet, Kerosene, ALPO4, OP compound, Herbal Poison, OP+ALPO4, Rat Poison, Bedbug Poison, Hanging, Partial Hang and Wrist slash modes of suicide attempts were 40.00%, 2.00%, 3.00%, 28.00%, 2.00%, 2.00%, 12.00%, 1.00%, 4.00%, 4.00% and 2.00%, respectively.

Table 3 are shows the reasons for the suicide attempt. The conflict are found in maximum (76%) patients followed by physical illness, financial, unemployment and alcohol intoxication reasons. The distributions of the patients on the basis of reasons for the suicide attempt are comparable in between male and female.

The diagnosis as per MINI PLUS is shown in Table 4. Out of 100, total 47% patients had adjustment disorder in which 57% male and 31.71% female. Total 2% patients had alcohol dependence.

The personality disorders of the patients were diagnosed after interview as shown in Table 5. Total 59% patients had no personality disorders. Out of 41, total 22% patients had mixed type, 9% had Impulsive, 5% had Anxious, 2% had Schizoid, and 1% had paranoid, anankastic and dependant types of personality disorders. The distributions of personality disorders were not significantly different in between male and female.

Table 6 shows the mode of suicide attempt (Poisoning, OP compound, Tablet, Rat poison, hanging and Wrist lash) among various personality disorders such as Paranoid, Schizoid, Dissocial, Impulsive, Borderline, Histrionic, Anankastic, Anxious and Dependent.

BECK'S Suicide Intent are shown in Table 7. The mean Beck Part I and Part II score were 3.59±1.83 and 5.49±2.35, respectively. The median Beck Part I and Part II score were 3 and 6, respectively.

DISCUSSION

This observational, cross-sectional, clinical study we aim to observe the personality disorder most commonly associated with suicide attempts and various socio demographic factors associated with the same.

In this study the mean age of the patients were 29.1 years, in which most of whom were in the age group of 18 -30 years, 59% males and 41% females, with a sex – ratio of 1.43:1, 83% of Hindus, 61% of married individuals 35% unmarried, 3% separated ,51% from nuclear family setup, of educational background of having completed high school and pre-university (39%), 14% unemployed, urban dwellers (63%), 6% having past psychiatric illness, mainly, adjustment disorder (20%) and 8% with a family history of suicide, 23% having history of physical illness. It was evident that most cases were of 18-30 years age range similar to the worldwide trend [20,21]. It appears that this population is most vulnerable to psychosocial stressors, thus explaining the higher incidence. As age progresses individuals become more practical and have learnt better coping strategies through their life's experiences. This study finding supports the current growing trend of suicides and attempts in younger population.

Males feature more in each of the age ranges as well as overall with a sex ratio of 1.43:1. This is in contrast to world statistics that indicate completed suicides to be more common in Males and attempted suicides to be commoner in females [21]. However, previous study reported that the higher incidence in males, Sathyavathi had reported female preponderance [22].

Reason for this variation from western study can be due to neglect of females health prevalent in our country. Males attempt on life by lethal methods [23] which means longer stay in hospital as IP and thereby more likely to be referred and seen at Psychiatry Department. This is not the case in females whose attempts are by less lethal means, shorter stay and have a lesser likelihood of a referral.

In present study we found that the marriage doesn't appear to contribute towards feeling of security and hence greater number of cases was married than unmarried in our study. Other studies in this regard have similar findings [24,25].

In this study the cases belonged more commonly to the nuclear family setup similar to other studies [26,27], while joint and extended joint families featured much lesser. This can be looked upon as a rising global phenomenon. However, it must be understood that quality of relationships and perception of social support are important in this context.

In current study, the illiteracy was more commonly in the cases. Only few cases were of high school and pre university/diploma population. This observed difference suggests that a higher year of education is more protective against suicidal attempt as lesser education means lesser employment opportunities and poorer problem solving skills.

Unskilled employed individuals were more frequently present in cases who do get the benefits explained by the fact that financial strain and family responsibilities play a contributory part in attempting on life similar to Kosidou et al. 2014 [28].

Urban dwellers were of higher percentage than rural and slum dwellers in cases which is in accordance with the worldwide scenario. Stressful life styles may be contributory towards suicide just as mentioned by Khan et al. 2005 [29].

The presence of Psychiatric illnesses (6%) and Family history of suicide (8%) in the group indicates that these factors have a bearing on suicide attempt though their presence is much lesser as opposed to 90-95% of suicide completers and in para-suicidal attempters having psychiatric illnesses as per other studies [30,31].

Total 7% of individuals had history of epilepsy. Suicide attempts are significantly more frequent in patients with epilepsy (PWE). In a cross sectional study, Jones et al. (2003) found a 20.8% lifetime prevalence of suicide attempts among 139 outpatients followed in five tertiary epilepsy centres in the USA [32]. In a more recent study of 208 patients with treatment – resistant focal epilepsy, suicide attempt within the last 4 weeks was endorsed by 4.6% patients, while a lifetime suicide attempt was identified in 21.1% of patients [33].

Disorder of schizoid (4%) and anankastic (3%) personality dominated. This was followed by paranoid, impulsive histrionic and anxious (2%). There was dependant, dissocial and borderline in 1% each. Various previous studies found higher dimensional scores for the epilepsy patients on the cluster C PDs dependent and avoidant [34-37]. This corresponds with the clinical impression that patients with epilepsy are frequently seen as odd, who avoid personal contact for reasons of uncertainty or highly self-critical for the need of control.

The most common methodology adopted was by Poisoning, which can be attributed to the easy access of lethal chemicals and pesticides to general public and it being reportedly a less painful mode of ending life. Higher score in suicide intent scale does not correlate with method used. Hanging was observed in 3%.

In this study, there was no current major psychiatric illness in the sample as they were observed by MINI PLUS and clinical interview. Current as well as past psychiatric illnesses were adjustment disorder and alcohol in dependence pattern. Nearly half of the cases had at least one personality disorder co morbid with at least one axis-I disorder. Very few cases (4%) had axis-II personality disorder alone in study by Chandrashekaran et al (2003) [38]. Hence major psychiatric disorders were ruled out to screen for only personality disorder influencing suicidal behaviour.

Suicide intent scale by Beck was used by Casey in 1989 studying 60 para-suicide cases, the mean total score being 11. Another study using the same scale on para-suicide patients using violent method like jumping infront of railway track in 1996, showed mean score of 17. In this study the mean score is 9. Maximum total score being 16. This is less as compared to previous studies. On the other hand beck score did not correlate with choice of method and severity of personality disorder observed thus making any prediction on basis of high score difficult.

Personality disorders are implicated with increased frequency of attempts main characteristic being impulsivity. In this study various personality disorders were screened using IPDE screening questionnaire. The degree to which a patient exhibits the characteristics of a PD was determined by conceptualising each PD as a continuum. After the screening, the patients were further interviewed to find out if they met the ICD-10 criteria for any of the personality disorders.

In this scale there is no provision for screening Schizotypal and Narcissistic personality disorders. Only 9 personality disorders were to be screened after which IPDE questionnaire was to be applied. After using the IPDE screening questionnaire among the 9 personality, it was noted that most individuals agreed to have answered the questions screening for most personality disorders. Most occurring personality traits were that of impulsive (46%) followed by dependant. Impulsive personality disorder was only 9% in the total sample out of which 4% were male patients. Borderline personality disorder being one of the commonest personality disorders identified in several studies in patients who attempt suicide [39-41]. A few other studies have also identified anxious avoidant, anankastic, and paranoid personality disorder as common personality disorders [42,43]. In our sample there was 5% of Anxious PD,2% Schizoid PD and 1% each of Paranoid PD, Anankastic PD. Among the individuals who had only "True" answers for only one PD screening, that for dependent personality predominated. However there was only one person diagnosed as Dependant Personality in the sample. This is also seen in some studies which noted no suicidal risk with Cluster C especially with dependent personality [44]. They also noted that dependent personality disorder was associated with suicide risk only there was comorbid diagnosis of depressive disorder. Here as major psychiatric disorders were ruled out, dependent personality characteristics were seen in 43% of the individuals along with other personality traits and 5% in its pure form. This could be explained by the presence of unemployed and individuals in the sample. What is to be noted is that prevalence of personality characteristics among all individuals with suicide attempts were considered than prevalence in each individual.

Only 29% individuals had borderline personality disorder characteristics along with others but diagnosis of borderline disorder could not be made in any. This is again in contrast to other studies. When it comes to differences between the two genders, males had much more dissocial, anankastic, anxious and histrionic characteristics than females. Multiple personality disorder traits were

present in most individuals. Even on further interviewing the numbers of patients with mixed PD were found more (22%).

As with other studies, and in general population, interpersonal conflicts remained the main reasons for the attempts even in among various personalities. Mode of suicide was poisoning in the majority. However hanging was observed in individuals with paranoid PD characteristics but did not meet for any PD according to ICD-10 criteria.. The presence of personality disorder in the sample may mean that it could be a determinant of suicidal behavior. It acts in many ways: by predisposing to major psychiatric disorders such as depression or alcoholism, by leading to difficulties in relationship and social adjustment, by precipitating undesirable life events, by impairing the ability to cope with a psychiatric or physical disorder, and by drawing a person into conflicts with family members and others. However, prevalence of personality disorders may vary in studies due to different diagnostic criteria and screening tools used.

Limitations of the study:

The cross-sectional assessment, it was not possible to imply causation or to test the direction of the effects. In–patient referrals predominated the sample with no outpatients. The fact that both case and control participants were sampled from a single general hospital in an urban setup, it may limit generalizability and findings require replication in other settings. The measurement tools were not standardized to the language of translation. Interviewer bias may have played a part as the interviewer was not blinded. The samples were non – randomized.

Table 1: Baseline characteristics of the patients

		n	%
Age (years)	18-25 yrs	43	43.00
	26-60 yrs	57	57.00
Gender	Male	59	59.00
	Female	41	41.00
Marital Status	Married	61	61.00
	Unmarried	35	35.00
	Separated	3	3.00
	Widow	1	1.00
Education	Illiterate	61	61.00
	Primary	21	21.00
	High School & above	28	28.00
Occupation	Skilled	61	61.00
	Unskilled	25	25.00
	Nil	14	14.00
Past history of psychiatry illness	ADS	3	3.00
	Not known	1	1.00
	Adjustment disorder	2	2.00
Medical illness	CVA	1	1.00
	Epilepsy	7	7.00
	hypothyroidism	2	2.00
	infertility	2	2.00
	TB	2	2.00
	Nil	48	48.00

Table 2: Mode of suicide attempt

	n	%
Tablet	40	40.00
Kerosene	2	2.00
ALPO4	3	3.00
OP compound	28	28.00
Herbal Poison	2	2.00
OP+ALPO4	2	2.00
Rat Poison	12	12.00
Bedbug Poison	1	1.00
Hanging	4	4.00
Partial Hang	4	4.00
Wrist slash	2	2.00

Table 3: Reasons for the suicide attempt

	Total		Males		Females		p-Value
	n	%	n	%	n	%	
Alcohol intoxication	1	1.00	1	1.69	0	0.00	0.189
Conflict	76	76.00	41	69.49	35	85.37	
Financial	9	9.00	5	8.47	4	9.76	
Unemployment	4	4.00	4	6.78	0	0.00	
Physical illness	10	10.00	8	13.56	2	4.88	

Table 4: Diagnosis as per MINI PLUS

Psychiatric diagnosis	Total n (%)	Males n (%)	Females n (%)
Adjustment disorder	47 (47.0)	34 (57.63)	13 (31.71)
Alcohol Dependence Syndrome	2 (2.0)	0 (0.0)	2 (4.88)
NIL	51 (51.0)	25 (42.37)	26 (63.41)

Table 5: Diagnosis after interview

Personality disorders	Male (n=59)		Female (n=41)		Total (n=100)	
Nil	35	59.32	24	58.54	59	59.00
Paranoid PD	0	0.00	1	2.44	1	1.00
Schizoid PD	2	3.39	0	0.00	2	2.00
Dissocial PD	0	0.00	0	0.00	0	0.00
Impulsive PD	4	6.78	5	12.20	9	9.00
Borderline PD	0	0.00	0	0.00	0	0.00
Histrionic PD	0	0.00	0	0.00	0	0.00
Anankastic PD	1	1.69	0	0.00	1	1.00
Anxious PD	1	1.69	4	9.76	5	5.00
Dependant PD	1	1.69	0	0.00	1	1.00
Mixed PD	15	25.42	7	17.07	22	22.00

Table 6: Mode of suicide attempt among various personality disorders

	n	Poisoning	OP compound	Tablet	Rat poison	Hanging	Wrist lash
Paranoid	32	28	11	10	6	3	1
Schizoid	28	18	5	10	2	1	1
Dissocial	29	25	9	12	4	2	1
Impulsive	46	43	13	20	6	2	1
Borderline	29	28	7	16	3	-	1
Histrionic	24	23	8	10	4	-	1
Anankastic	26	25	8	12	4	-	1
Anxious	28	26	10	11	4	1	1
Dependent	43	18	6	8	3	1	-

Table 7: BECK'S Suicide Intent

	Mean	Std Deviation	Median
Beck Part I score	3.59	1.83	3
Beck Part II score	5.49	2.35	6

CONCLUSION

It is important to know the personality characteristics of persons with suicidal behavior. Impulsive and dependant personality traits were more common with suicide attempters. Most patients did not meet for the diagnosis of a Personality Disorder. Multiple PD characteristics as well as Mixed PD were present in more patients. Study of personality traits / characteristics of people who attempt suicide may help in making interventions which may reduce further suicide attempts. Further prospective controlled studies required to know the values of I.P.D.E. questionnaire.

REFERENCES

1. Minois G. History of Suicide: Voluntary Death in Western Culture. Baltimore: The John Hopkins University Press; 1999.
2. Vyas JN, Ahuja N. Human Self Destructive Behaviour. In: Unni KE,editors. Textbook of Postgraduate Psychiatry.2nd ed. Jaypee Brothers India 2008; 35-72.
3. Borges G, Angst J, Nock MK, et al: Risk factors for the incidence and persistence of suicide-related outcomes: a 10-year follow-up study using the National Comorbidity Surveys. J Affect Disord , 2008; 105(1-3) : 25–33
4. Silverman MM, Berman AL, Sanddal ND, O'Carroll PW, Joiner TE. Rebuilding the tower of Babel: A revised nomenclature for the study of suicide and suicidal behaviors. Part 2: Suicide-related ideations, communications, and behaviors. Suicide and Life Threatening Behavior. 2007;37(3):264–277.
5. Bloom DE, Cafiero ET, Jane-Llopis E, Abrahams-Gessel S, Bloom LR, Fathima S, Feigl AB, Gaziano T, Mowafi M, Pandya A et al: The Global Economic Burden of Noncommunicable Diseases. World Economic Forum 2011.
6. Bertolote JM, Fleischmann A. Suicide and psychiatric diagnosis: a worldwide perspective. World Psychiatry. 2002;1(3):181-185.
7. Berman, A. L. Estimating the population of survivors of suicide: Seeking an evidence base. Suicide and Life-Threatening Behavior 2011. 41(1), 110–6
8. Brent, D. What family studies teach us about suicidal behavior: implications for research, treatment, and prevention. Eur Psychiatry 2010. 25(5):260–3.
9. Jordan J. Is Suicide bereavement different? A reassessment of the literature. Suicide and Life-Threatening Behavior 2001. 31(1): 91–102.
10. Vijayakumar L. Suicide in India and Suicide in Asia. Yip PS, editor. Hong Kong University Press. Indian J Psychiatry 2010; 52(Suppl1). S291–96.
11. Jha P, Kumar R, Khera A, et al. HIV mortality and infection in India: estimates from nationally representative mortality survey of 11 million homes. BMJ 2010; 340: c621
12. Registrar General of India. Special bulletin on maternal mortality in India 2007–09. http://www.censusindia.gov.in/vital_statistics/SRS_Bulletins/Final-MMR% 20 Bulletin-2007-09_070711.pdf (accessed Aug 8, 2011)
13. Vijaykumar L. Suicide and its prevention: The urgent need in India. Indian J Psychiatry 2007; 49: 81–84.

14. Rao AV, Madhavan T. Depression and suicide behaviour in the aged. Indian J Psychiatry. 1983;25(4):251-9.
15. http://www.who.int/mental_health/prevention/suicide_rates/en/index.html
16. Patton GC, Coffey C, Sawyer SM, Viner RM, Haller DM, Bose K, et al. Global patterns of mortality in young people: A systematic analysis of population health data. Lancet. 2009;374:881–92.
17. Srivastava MK, Sahoo RN, Ghotekar LH, Dutta S, Danabalan M, Dutta TK, et al. Risk factors associated with attempted suicide: A case control study. Indian J Psychiatry. 2004;46:33–8.
18. Hawton K, van Heeringen K. Suicide. Lancet. 2009;373:1372–81.
19. Ennis. J., Barnes, R .A., Kennedy. S., & Trachtenberg. D. D. Depression in self-harm patients. British Journal of Psychiatry, 1989;154: 41-77.
20. Shukla GD, Verma BL, Mishra DN. Suicide in Jhansi city. Indian J Psychiatry. 1990;32:44–51.
21. Nock MK. Why do people hurt themselves? New insights into the nature and function of self-injury. Current Directions in Psychological Science. 2009;18:78-83.
22. Venkoba Rao, A. (1970). A study of depression as prevalent in South India. Transcult. Psy-chiat. Res. Rev , 7, 165.
23. Beautrais AL. Gender issues in youth suicidal behaviour. Emergency Medicine (Fremantle). 2002;14(1):35-42.
24. Sarkar P, Sattar FA, Gode N, Basannar DR. Failed suicide and deliberate self-harm: A need for specific nomenclature. Indian J Psychiatry. 2006;48:78–83.
25. Suicide attempters in a general hospital unit in India: Their socio-demographic and clinical profile--emphasis on cross-cultural aspects. Acta Psychiatr Scand. 1996;94:26–30.
26. WHO. The global burden of disease: 2004 update. Geneva: World Health Organization, 2008.; Phillips MR, Li X, Zhang Y. Suicide rates in China, 1995–99. Lancet 2002; 359: 835–40
27. WHO. Suicide rates per 100 000 by country, year and sex. http:// www. who. int/ mental health/prevention/suicide_rates/en/ (accessed Aug 8, 2011)
28. Kosidou K, Dalman C, Fredlund P, Magnusson C. School performance and the risk of suicidal thoughts in young adults: population-based study. PLoS One. 2014;9:e109958.
29. Khan FA, Anand B, Devi M G, Murthy K K. Psychological autopsy of suicide-a cross-sectional study. Indian J Psychiatry 2005;47:73-8.
30. Kessler, R. C., Berglund, P., Borges, G., Nock, M. K., & Wang, P. S. (2005). Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990–1992 to 2001–2003. Journal of the American Medical Association, 293 : 2487-95.
31. Brent, D. A., & Mann, J. J. Familial pathways to suicidal behavior—Understanding and preventing suicide among adolescents. New England Journal of Medicine, 2006; 355(26):2719-21.
32. Jones JE, Hermann BP, Barry JJ, Gilliam FG, Kanner AM, Meador KJ. Rates and risk factors for suicide, suicidal ideation, and suicide attempts in chronic epilepsy. Epilepsy Behav. 2003 Oct;4 Suppl 3:S31-8.
33. Hesdorffer,D.C., French J.A., Posner K., et al.. Suicidal ideation and behaviour screening in intractable focal epilepsy eligible for drug trials. Epilepsia, 2013;54:879-87.
34. 135.Lopez-Rodriguez, F., Altshuler, L., Kay, J., Delarhim, S., Mendez, M. and Engel, J. Personality disorders among medically refractory epileptic patients. Journal of Neuropsychiatry and Clinical Neuroscience, 1999; 11: 464-9.
35. 136. Manchanda, R., Schaefer, B., McLachlan, R. S. et al. Psychiatric disorders in candidates for surgery for epilepsy. Journal of Neurology, Neurosurgery, and Psychiatry, 1996;61: 82-9.
36. 137. Arnold, L. M. and Privitera, M. D. Psychopathology and trauma in epileptic and psychogenic seizure patients. Psychosomatics, 1996; 37: 438–443.
37. 138. Swinkels, W. A. M., Kuyk, J., de Graaf, E. H., van Dyck, R. and Spinhoven, Ph. Prevalence of psychopathology in Dutch epilepsy inpatients a comparative study. Epilepsy and Behavior ,2001; 2: 441–7.
38. Chandrashekaran R, Gnanaseelan J, Sahai A, Swaminathan RP, Perme B. Psychiatric and personality disorders in survivors following their first suicide attempt , Indian J Psychiatry 2003;45:45-8.
39. Ennis. J., Barnes, R .A., Kennedy. S., & Trachtenberg. D. D. Depression in self-harm patients. British Journal of Psychiatry, 1989;154: 41-77.
40. Suominen. K., Henriksson. M., Suokas.J., Isometsa .E, OstamoJV. ft Lonnqvist J Mental disorders and co morbidity in attempted suicide. Acta Psychiatrica Scandinavica, 1996;94:234-40.
41. Gupta, B ft Trzepacz , P. Serious overdosers admitted to a general hospital: comparison with nonoverdosage self- injuries and medically ill patients with suicidal ideation. General Hospital Psychiatry, 1997;19:209-15.
42. Haw C, Hawton K, Houston K. Ft Townsend. E. Psychiatric and Personality disorders in deliberate self-harm patients. . British Journal of Psychiatry, 2001;178: 48-59.
43. Dirks B. Repetition of parasuicide. ICD- 10 personality disorders and adversity. Acta Psychiatrica Scandinavica, 1998; 98: 208-13.
44. Chioqueta AP, Stiles TC. Suicide Risk in Patients with Somatization Disorder. Crisis: The Journal of Crisis Intervention and Suicide Prevention 2004;25(1):3–7.