



STUDY OF PSYCHIATRIC CO-MORBIDITY AND ASSOCIATED PSYCHOSOCIAL STRESS IN ATTEMPTED SUICIDE PATIENTS

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ABSTRACT

Introduction: The prevalence rates of suicides are on the rise in the developing countries particularly among farmers, students and the marginalized sections of the society. This imposes great psychological stress to the bereaved families and great economic loss to the nation.

Objective: To study the demographic profile and other related details like psychiatric co morbidity, psychosocial stress preceding the event, of attempted suicides in a rural setting.

Material & Methods: This cross sectional study was conducted at the General Hospital attached to GSL Medical College, Rajahmundry, Andhra Pradesh, India. The sample size was 60. Data collection was done by predesigned proforma and health parameters are assessed using the standard research tools like Mini International Neuropsychiatric Interview plus (MINI), The presumptive stressful life event scale etc.

Results: In this study out of 60 cases of attempted suicides 44 (73.3%) subjects belong to the age group between 15-35 years, 36(60%) are of female gender, 31 (53%) were educated, 32(55%) are unskilled workers, 16(26.7%) belong to lower middle class, 48(80%) belong to nuclear family, 41(68%) of them consumed organophosphorous poison to kill themselves, 31(55%) of them suffered from psychiatric illness before the attempt, 42(73%) had significant life events in the past one year.

Conclusion: Majority of the subjects who attempted suicides are young in age, belong to lower socioeconomic status, unskilled workers, had psychiatric co morbidity, illiterates, of rural origin, and the most common mode of the attempt being consumption of organophosphorous poison.

Key Words: Attempted suicide patients, Psychiatric co-morbidity, and psychosocial stress

INTRODUCTION

Death due to suicide ranks among the first few causes of mortality at present. This causes serious psychiatric morbidity among family members of the diseased person. It is considered as an important human tragedy from the national economic perspective as well. In the last half a century, suicide rates have increased by about 60%.¹ Nearly one million people commit suicide worldwide every year (i.e. One suicide every 40 seconds) compared to approximately 400000 suicides every year, a decade earlier. Suicide is among the ten leading causes of death for all ages in most of the countries (WHO).² The term 'attempted suicide' encompasses a wide variety of self destructive behaviors ranging from

serious, life threatening acts to relatively minor gestures primarily aimed at attracting attention. This ambiguity about the criterion has led to dissatisfaction with the term, and a number of alternatives have been proposed including deliberate self poisoning and self injury,³ non-fatal deliberate self harm or deliberate self harm,⁴ parasuicide.⁵ Psychiatric co morbidities in suicide attempters have been the interest of many researchers. Literature has recorded association of psychiatric and personality disorders in such cases, both in the West and in India. Prevalence rates of psychiatric disorders in suicide attempters have ranged from 11.6%⁶ to 93%⁷. Prevalence rates of co morbid psychiatric disorders in suicide attempters have ranged from 7%⁸

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to 82%.⁹ Risk for suicidal behavior differs markedly among individuals; factors such as socio-demographic differences, personality traits, and psychiatric disorders all contribute to individual differences in risk. The question of whether various risk factors contribute independently to suicidal behavior or whether some risk factors are confounded with more basic individual differences has not been thoroughly investigated but is highly relevant from the standpoint of risk assessment and prevention.

AIM

1. To study the demographic profile and other related details of attempted suicides in a rural setting.
2. To assess the presence of psychiatric co morbidity.
3. To assess the increasing psychosocial stress preceding the event, that could be contributive to the event.
4. To assess any associated physical symptoms preceding the event.

MATERIAL & METHODS

Type of study: The current study is a cross sectional descriptive, inferential and hospital based study.

Source of data: Sample for the current study are patients who had attempted suicide and were referred to the Psychiatric services at the GSL Hospital during the period December, 2012 to July, 2013.

Method of collection of data:

Sampling method: 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.

Ethical Considerations: The study was approved by the institutional ethics committee and written informed consent was taken from the parents or caregivers of the child.

Tools used for assessment:

1. An Intake Pro forma to record socio-demographic features and details of suicide attempts.
2. Socio- Economic scale by O.PAggarwal
3. Physical symptoms scale by Kapur.
4. Family and Social Integration Schedule - Venkoba Rao (1989)
5. The presumptive stressful life event scale. (Singh, G, et al 1983).
6. Mini International Neuropsychiatric Interview plus, English Version 5.0.0.

RESULTS

All the statistics were performed by using SPSS 16.0 trial version and MS Excel 2007. The descriptive statics were presented in the form of mean \pm standard deviation and percentages. Chi-square test is performed to find association between categorical study variables. $P < 0.05$ was considered as statistically significant.

DISCUSSION

This study has provided information about the relationship of attempted suicide to a number of factors such as age, sex, marital status, employment status, educational background, method and circumstances led to attempt, motivation, and psychiatric diagnosis and stress associated with suicide attempters.

Sociodemographic features

Age (Fig 1): Peak occurrence of suicides was in the age groups of 15-35 the youngest and oldest being 16 and 66 years respectively. This finding coincides with the observations made by Srivatsava et al(2004)⁶ and Haw et al(2009)¹⁰. Rao (1965)¹¹ noted that majority of individuals were in age range between 15- 25 years in both sexes.

Gender (Fig 2): Female preponderance of 60% in the sample is in conformation with other studies on attempted suicide observed by Srivatsava et al (2004)⁶ and Oquendo (2007)¹² Contrary to the above male preponderance was seen in the studies of Rao(1965)¹¹.

Religion(Fig 4): It is very difficult to make any observations from the religious prospective as 85% Indian population are Hindus, which coincides with studies observed by Kumar et al(1995)¹³ and Joseph Raj et al(2000)¹⁴.

Education (Fig 5): Majority of the suicide attempters in the present study had only primary education. This is contrary to the study observed by Chandrasekaran et al⁸. (Table-1) Different domiciliary background could be the reason for this observation.

Table 1: Education

Education	Present study	Chandrasekhar et al ⁸
Uneducated	46.7%	24.9%
Primary education	30%	6.5%
High school	18%	46.6%

Socioeconomic status (Fig 7): The observation made in the present study that maximum number of suicide attempters belong to low socioeconomic sta-

tus, which is in accordance with the findings observed by Chandrasekaran et al (2003)⁸(Table-2), Haw et al(2001)¹⁰.

Table 2: Socioeconomic status

SES	Present study	Chandrasekaran et al ⁸
Low SES	41%	82.7%

Mode of attempt (Fig 9): In present study organophosphorous poisoning was predominantly used mode of attempt for attempting suicide, reason may be at the easy availability to these compounds. This coincides with the observations made in studies like Latha et al (1996)⁷(Table-3). Harris et al (2005)¹⁵.

Table 3: Mode of suicide attempt

Mode of attempt	Present study	Latha et al ⁷
Organophosphorous	67%	67%
Drug overdose	16.7%	29%
Others	16.3%	3%

Suicidal ideation (Fig 10): In present study only 26.7% of subjects had prior suicidal ideation which coincides with statistical figure 23.25% of study conducted by Ponnudurai et al(1986)¹⁶

Psychiatric diagnosis (Fig 15): In present study 55% of the suicide attempters suffered from Psychiatric disorder. These findings are in accordance with observations from other studies made by Suominen et al (1996)¹⁷Chandrasekharan et al (2003)⁸ (Table-4) and Oquendo et al (2007)¹².

Table 4: Psychiatric diagnosis

Psychiatric diagnosis	Present study	Chandrasekhar et al ⁸
Major depressive disorder	28.3%	31%
Dysthymia	6.6%	9.7%
Panic disorder	3.3%	14.5%
Alcohol dependence	13.3%	8.7%
Psychotic disorder	6.7%	0.6%

Stressful life events (Fig 16): In the present study 73.3% of the subjects suffered from stressful events in past 1 year and only 26.7% suffered from stress in life-time events, which coincides with studies from Srivatsava et al (2004)⁶, Chowdhary et al(2007)¹⁸.

CONCLUSIONS

- Majority of the suicide attempters were young and below 35 years of age. Women (73%) outnumbered Men in the study. More number (53%) of the subjects had education below or up to 10th Standard, (Fig 5). Most of the suicide attempters were married (75%). (55%) constituted unskilled labour by occupation (Fig 6), and (26%) belong to low-middle socioeconomic status, (Fig 7). All of the suicide attempters were from rural background. 80% of the subjects belongs to nuclear families, (Fig 8).
- Oral agents were used for attempting suicide in all fifty one patients of our study sample. The most common method of self harm was consumption of organophosphorous compounds (41 patients) followed by drug overdose (10 patients). Majority of the subjects made an impulsive suicide attempt which constitutes 70% of the sample which may be another cause for the use of pesticides commonly for attempting suicide in this region (Fig 10). Lack of restriction for procurement of these compounds and easy availability may be the reason for the preference to use these agents for attempting suicide.
- Stressful life events seemed to play an important role for attempting suicide of which 73% experienced in first one year and 26% constituted life time events (Fig 16).
- 55% of the suicide attempters suffered from a psychiatric disorder and major depressive episode (28%) and alcohol dependence (13%) were found to be most common diagnosed disorders (Fig 15).
- Only 22% of the subjects had left suicide note (Fig 11). This may be indirectly attributed to low literacy and rural domicile for majority of the patients.
- 80% of the subjects were guilty of their suicidal behaviour after survival from the suicidal attempt, (Fig 13).
- 75% of the suicide attempts were performed in solitude. Solitude may be considered as one of the risk factors for suicidal behaviour, (Fig 14).

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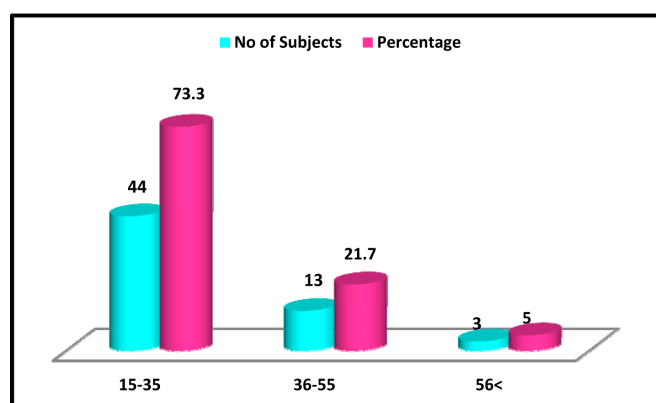


Figure 1: Distribution of study subjects based on age

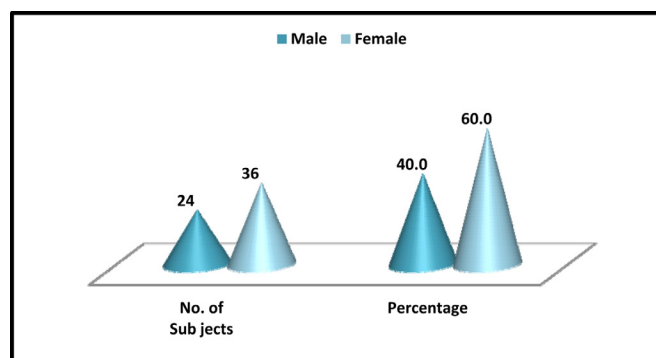


Figure 2: Distribution of study subjects based on gender

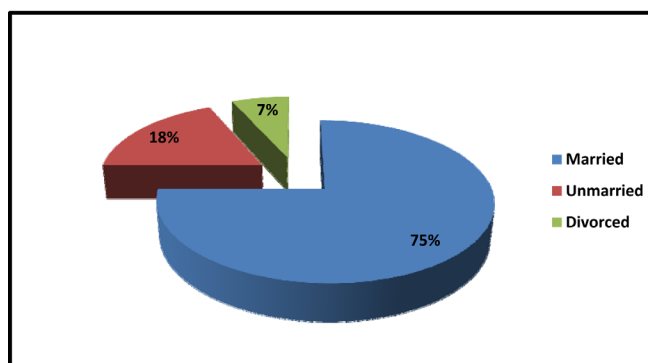


Figure 3: Distribution of study subjects based on marital status

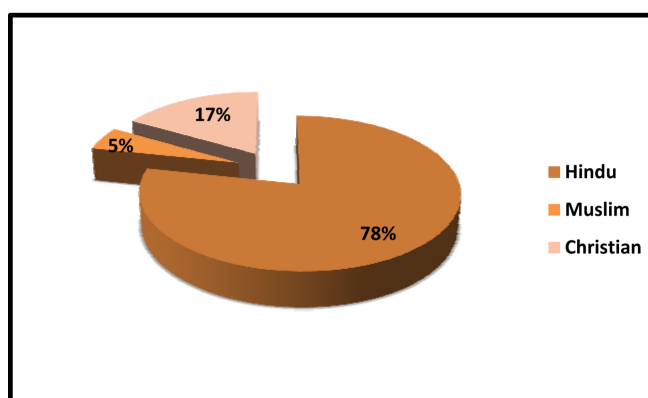


Figure 4: Distribution of study subjects based on religion

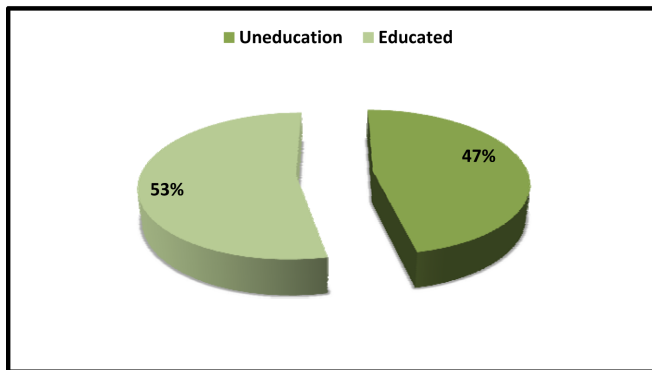


Figure 5: Distribution of study subjects based on education

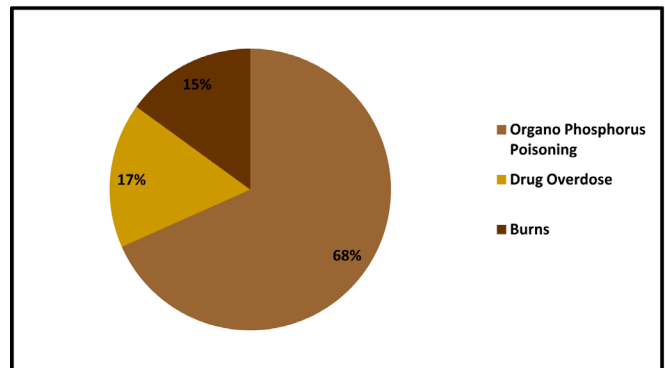


Figure 9: Distribution of study subjects based on mode of attempt

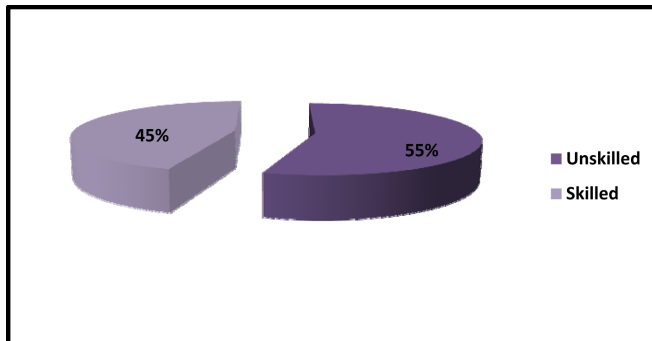


Figure 6: Distribution of study subjects based on occupation

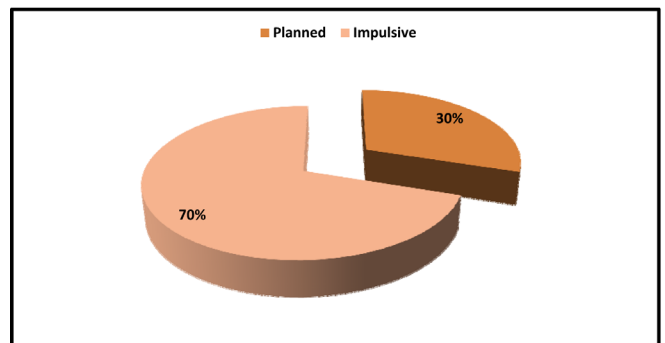


Figure 10: Distribution of study subjects based on suicide details

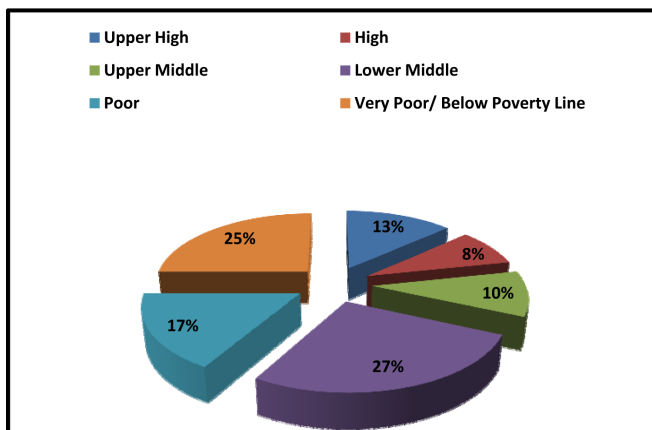


Figure 7: Distribution of study subjects based on socioeconomic status

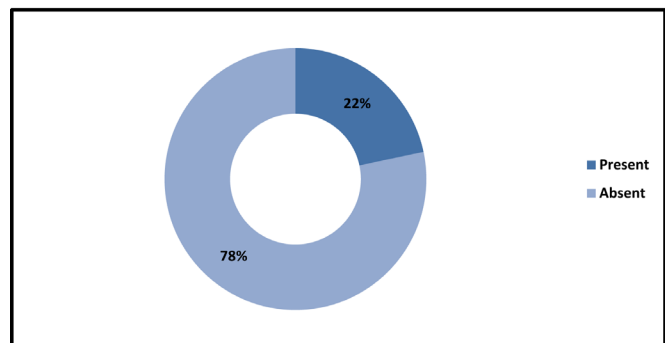


Figure 11: Distribution of study subjects based on suicide note

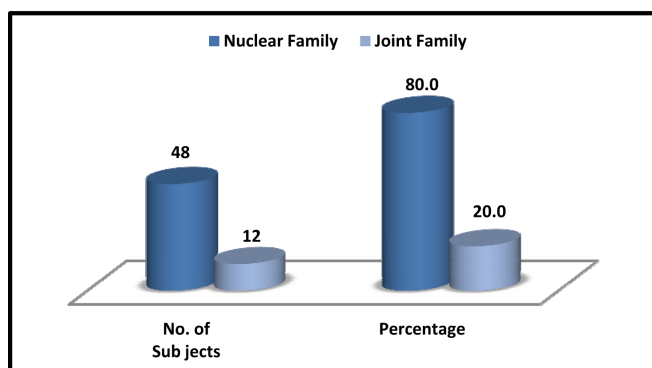


Figure 8: Distribution of study subjects based on family type

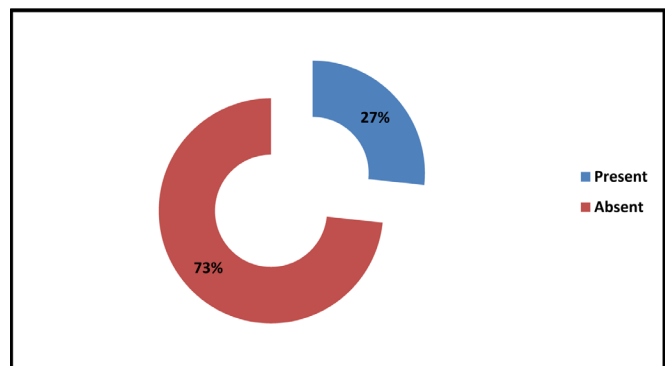


Figure 12: Distribution of study subjects based on suicidal ideas

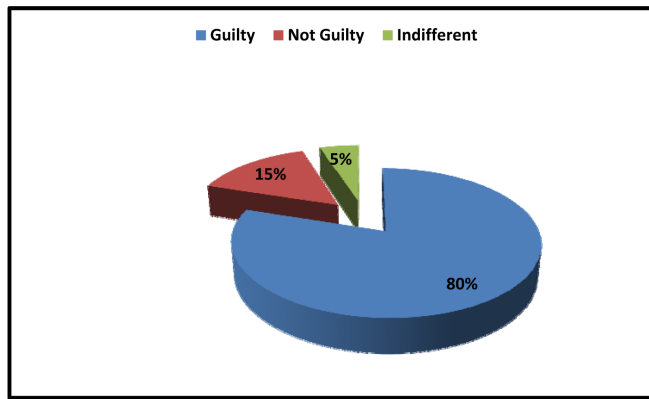


Figure 13: Distribution of study subjects based on attitude towards attempt after recovery

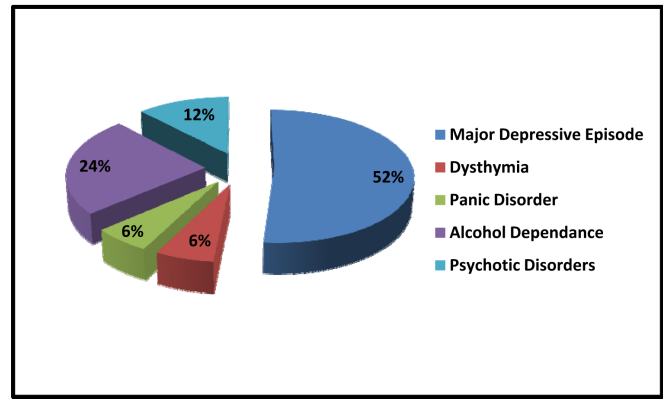


Figure 15: Distribution of study subjects based on psychiatric illness before attempt

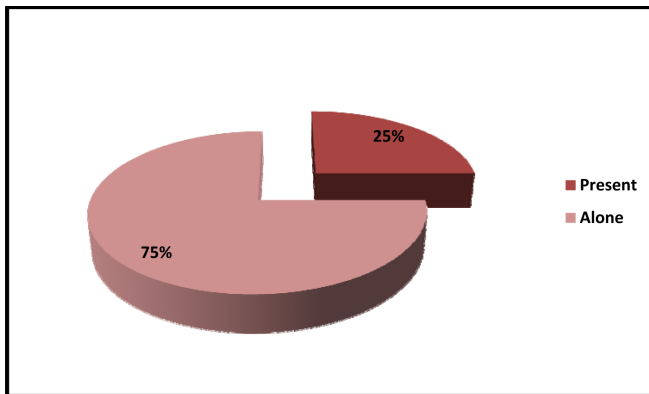


Figure 14: Distribution of study subjects based on presence of others during attempt

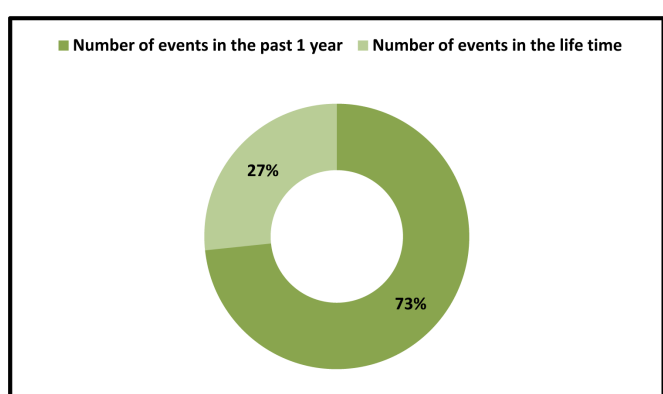


Figure 16: Distribution of study subjects based on life events