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Research Article

PSYCHIATRIC CO-MORBIDITY IN DELIBERATE SELF HARM PATIENT AT RURAL MEDICAL COLLEGE OF SOUTH INDIA

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ABSTRACT

Introduction: 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). Deliberate self harm is often associated with Psychiatric disorders influencing morbidity and mortality.
Objective: To study the demographic profile and other related details like psychiatric co morbidity of attempted suicides.
Material and Method: The current study is a cross sectional descriptive, inferential and hospital based study. The sample size was 94. A semi structured format was used to collect the information from both patient and the relatives. Diagnostic and Statistical Manual IV edition (DSM-IV) was used to categorize patients in to various groups of Psychiatric disorders, results were analyzed using SPSS Version 18. Chi square and Odds Ratio were used.
Results: In this study Peak occurrence of suicides was in the age groups of 15-25 (51.06%) followed by 26-35 (29.78%), with Male preponderance of 60.63 %. Our Study finds 60 (63.82%) people having one or the other major psychiatric disorder according to DSM IV criteria. Among them 35 (58.33%) were males and 25(41.66%) were females. Common psychiatric disorders found were Alcohol and substance abuse among males and adjustment disorders and depression in females. Distribution of DSH patients with psychiatric co morbidity in different age groups showed strong skew towards younger age , with majority male patients 20 (57.14%) in the age group < 25 years.
Conclusion: All DSH patients should be carefully evaluated for co morbid Psychiatric disorders. There is also an urgent need to sensitize all Emergency duty physicians about DSH with co morbid Psychiatric disorders.

INTRODUCTION

Life is a stage with one entrance but many exits. Among those, suicide is one exit having a long ancestry. The word "Suicide" literally means, "To kill oneself" (Sui-of oneself and Caedre - To kill) (Taber's cyclopedic medical dictionary, 1905). In 1968, the World Health Organization defined suicidal act as "the injury with varying degrees of lethal intent" and suicide is defined as "a suicidal act with fatal outcome (Unni and Human, 2003). 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.

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Suicide is among the ten leading causes of death for all ages in most of the countries (WHO) (World Health Organization, 1993). Interestingly, the term 'suicide' is not defined in the Indian Penal Code. Legally suicide is defined as "the intentional act of self destruction committed by someone knowing what he is doing and knowing the probable consequences of his action." Suicidal acts with non fatal outcome are labeled by World Health Organization as "attempted suicide. "Deliberate Self – Harm (DSH)" term is unprejudiced and communicates more understandable and definite description. Attempted suicide or Deliberate Self Harm is a grave problem and a major concern to the society, which sometime or the other affects the lives of a significant proportion of the population. It could not be taken casually, for it may prove as equally dangerous as suicide itself and sometimes more than that because of the residual temporary or permanent disability (Yadwad, 2005).

The incidence of DSH is increasing and is being reported in much younger age group (Briere and Gil, 1998) both in clinical and general population (Zlotnick *et al*., 1999). It is reported across several specific psychiatric illnesses like Personality disorders, Alcohol and Substance abuse, Affective disorders (Zlotnick *et al*., 1999). Importance of co morbidity in DSH has been emphasized (Camilla and Haw, 2001). Co morbid psychiatric disorders increase the risk of suicide six times compared with Psychiatric disorders withoutDSH (Foster *et al*., 1999 and Shailaja, 2011). In India, attempt to commit suicide is punishable u/s 309 of the Indian Penal Code. Section 309 of the Indian Penal Code thus reads as: "Whoever attempts to commit suicide and does any act towards the commission of such offence shall be punished with simple imprisonment for a term which may extend to one year or with fine or with both." It is because; our legislature makes an offence dependent on proof of intention. Legally, an act is intentional if it exists in idea before it exists in fact, the idea realizing in itself is the fact because of the desire it is accompanied with (Yadwad, 2005).

Aim

The aim of the present study is to estimate the prevalence of Psychiatric disorders among deliberate self harm patients attending a teaching hospital and to investigate various psychosocial factors and personality profiles of deliberate self harm patients.

MATERIALS AND METHOD

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 Kamineni Hospital of Kamineni Institute of Medical Sciences, Narketpally, during the period of two years from December 2012 onwards prospectively. Method of collection of data: Sampling method: From the above sources, all consecutive cases attending 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. Tools used for assessment: All patients after stabilization were interviewed by a Psychiatrist. A semi structured format was used to collect the information from both patient and the relatives. Diagnostic and Statistical Manual IV edition (DSM-IV) was used to categorize patients in to various groups of Psychiatric disorders. The results were analyzed using SPSS Version 18. The descriptive statics were presented in the form of mean ± standard deviation and percentages. Tests of significance like Chi-square and Z (Proportions) test were used. Odds ratio was used to estimate the magnitude of association between psychiatric illness and repeat deliberate self harm.

Observation and Discussion

Peak occurrence of suicides was in the age groups of 15-25 (51.06%) followed by 26-35 (29.78%). This finding coincides with the observations made by Srivatsava *et al*. (2004) and Haw *et al*. (2009). Rao, (1965) noted that majority of individuals were in age range between 15- 25 years in both sexes (Tara and Ramana Rao, 2014). Male preponderance of 60.63 % in the sample is in conformation with other studies on attempted suicide observed by Rao, (1965). Contrary to the above Female preponderance was seen in the studies of Srivatsava *et al*. (2004) and Oquendo, (2007). DSH in younger age group is often reported. Males out numbering females are also seen in few studies (Kumar, 1998), though it is females often being reported to be more. It is very difficult to make any observations from the religious prospective as 85% Indian population are Hindus, Fig 1, which coincides with studies observed by Kumar *et al*. (1995) and Joseph Raj *et al*. (2000).

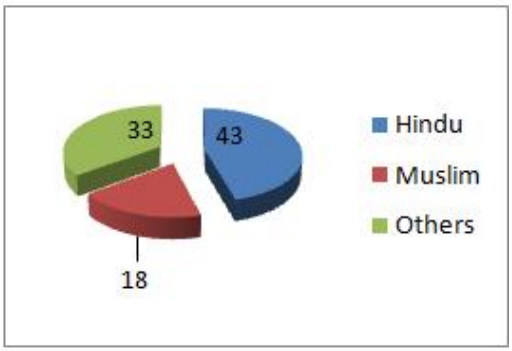

Figure 1. Distribution of study subjects based on Religion

Majority of the suicide attempters in the present study are illiterate or had only primary education. Fig 2. This is contrary to the study observed by Chandrasekaran *et al*., 2003 Different domiciliary background could be the reason for this observation. Education influences coping and problem solving skills probably.

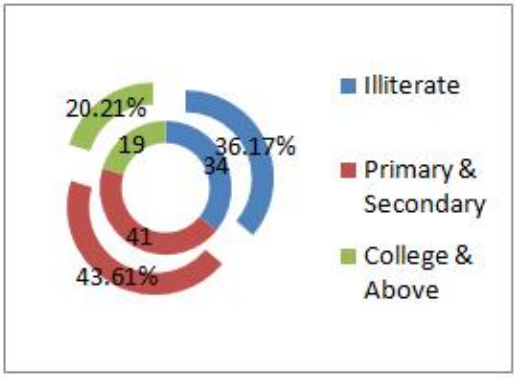

Figure 2. Distribution of study subject based on Education

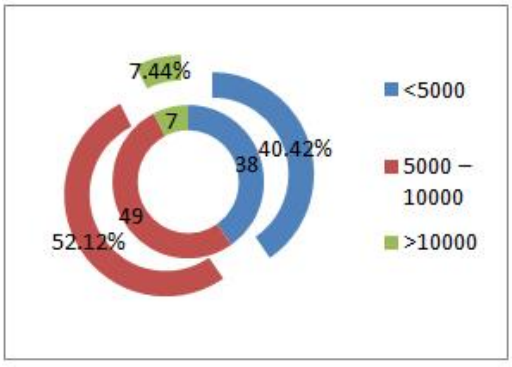

Figure 3. Distribution of study subjects based on Socio-economic status

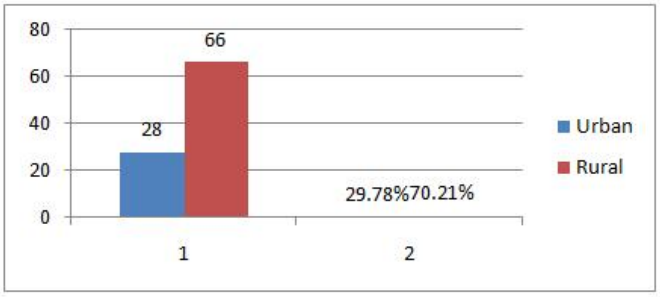

Figure 4. Distribution of study subjects based on Domicile

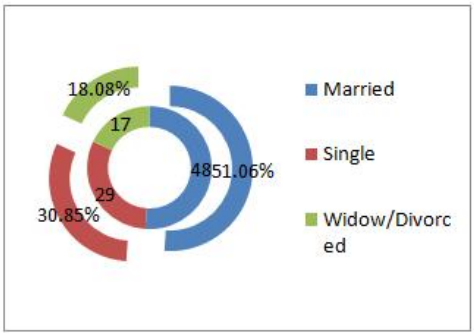

Figure 5. Distribution of study subjects based on marital status

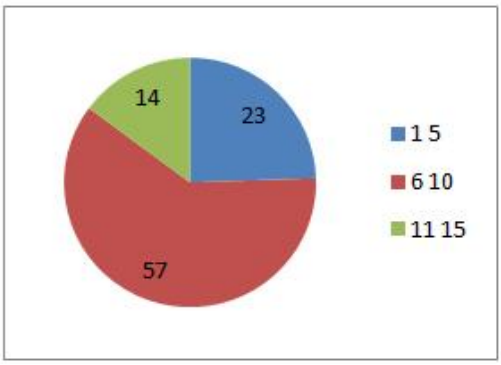

Figure 7. Distribution of study subjects based on Family Size

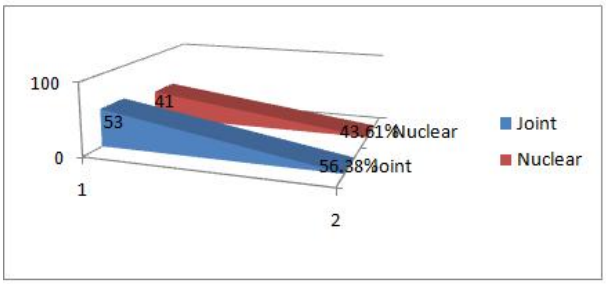

Figure 8. Distribution of study subjects based on Family type

Table No. 1. Age and Gender grouping of psychiatric Co morbidity in DSH patients.

Age	Psychiatric Illness				Total	Statistical Test
	Present		Absent			
	Male	Female	Male	Female		
<15	-	-	-	-	-	X^2= 4.45 P= 0.107
16-25	20(57.14)	9(36.0)	12(54.54)	7(58.33)	48(51.06)	
26-35	10(28.57)	8(32.0)	8(36.36)	2(16.66)	28(29.78)	
>35	5(14.28)	8(32.0)	2(9.09)	3(25.0)	18(19.14)	
Total	35	25	22	12	94	

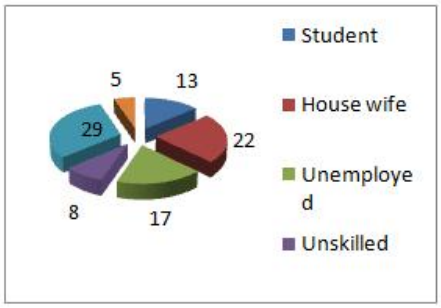

Figure 6. Distribution of Study subjects based on occupation

Maximum number of suicide attempters belong to low socioeconomic status, Fig 3, which is in accordance with the findings observed by Chandrasekaran *et al*. (2003). Haw *et al*. (2001). Poverty is associated with multiple stresses therefore is a risk for DSH. There was rural preponderance with 70.21% Fig 4. People belonging to this group. Majority (51.06 %) Fig 5, were married in the study population.

29.0% were students followed by 22.0% Fig 6. Housewives and among men Unskilled laborers and unemployed were in majority. The presence of psychopathology elevates the probability of self-injurious behaviors and thoughts, and self-injury is associated with more symptoms and greater severity of psychopathology among both men and women. Study finds 60 (63.82%) people having one or the other major psychiatric disorder according to DSM IV criteria.

Among them 35 (58.33%) were males and 25(41.66%) were females. Distribution of DSH patients with psychiatric co morbidity in different age groups showed strong skew towards younger age, with majority male patients 20 (57.14%) in the age group < 25 years. The association between Psychiatric illness and gender was highly significant (X^2 4.45, P = 0.107). Alcohol and substance abuse 17(48.57%) was major psychiatric disorder among males and Depression 10(40%) and adjustment disorders 12(48.0%) in females, followed by Schizophrenia and psychotic illness 2(5.71%) and other disorders like borderline personality and conduct disorders 3(8.57%) amongst males Table1 and Fig. 9.

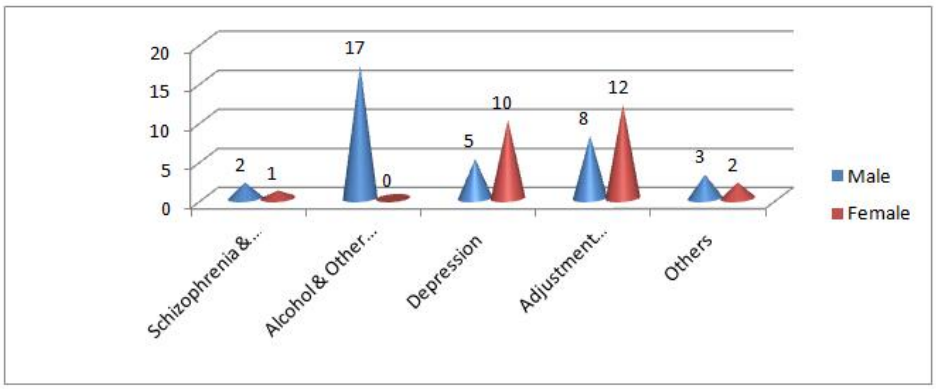

Figure 9. Distribution of Psychiatric Co morbid conditions among DSH patients

Deliberate Self Harm patients with psychiatric illness are 2.31 times at risk of committing repeated acts of deliberate self harm compared to patients without psychiatric co morbidity (Table No.2).

Table No. 2. Risk of Repetition of DSH and Psychiatric illness

Psychiatric Illness	Repeated Attempts of DSH		Total	Statistical Test
	Yes	No		
Present	11(78.57)	49(61.25)	60(63.82)	OR= 2.31 95% CI = 0.5992 to 8.9799
Absent	3(21.42)	31(38.75)	34(36.17)	
Total	14	80	94	

Table No. 3. Intention to Die in Psychiatric Co morbid DSH Patients

Psychiatric Illness	Intention to Die		Total	Statistical Test
	Yes	No		
Present	38(70.37)	22(55.0)	60(63.82)	X^2= 1.73 P= 0.04
Absent	16(29.62)	18(45.0)	34(36.17)	
Total	54	40	94	

A significant finding of this study was persistence of intention to die among deliberate self harm patients with co morbid psychiatric illness. 70.37% deliberate self harm patients with co morbid psychiatric disorders reported continued intention to die compared to 29.62 % deliberate self harm patients without co morbid psychiatric disorders (Table No.3). This association showed statistical significance (X^2 = 1.73, P = 0.04).

Conclusion

DSH patients have a greatly elevated risk of dying from suicide, especially during the first year following DSH. It is a growing public health problem. Significant number of these patients may end up with primary care doctors. There is an urgent need to sensitize Medical Officers regarding screening of DSH and Co morbid psychiatric disorders and their management at primary care level. DSH is associated with increased risk of death from accidents, homicides and several physical disorders. All potential outcomes need to be considered, both in relation to prevention and to evaluation of the overall healthcare burden of deliberate self harm. Our study highlights the need for Multi disciplinary team approach comprising of Community Health personnel, Psychiatrist and NGOs to tackle Social and Psychopharmacological aspects to prevent DSH with Psychiatric Co morbidity.

All acts of deliberate self harm should be taken seriously by healthcare professionals and comprehensive therapy offered. Programs for suicide prevention should be implemented for youth who are at risk for suicide, including those who self-injure themselves. More research on deliberate self harm should be carried out with reference to the research gaps of this paper.

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Conflicts of Interest: **Nil**

Author Disclosures

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REFERENCES

Yadwad, B.S. 2005. Is attempted suicide an offence? JIAFM, 27 (2). Page No 108-111.

Briere, J. and Gil, E. 1998. Self-mutilation in clinical and general population samples: prevalence, correlates, and functions. *Am. J. Orthopsychiatry*, 68:609620.

Camilla, Haw. 2001. Psychiatric and Personality disorders in deliberate self harm. *British Journal of Psychiatry*, 178:48-54.

Chandrasekaran, R., Gnanaseelan, J., sahai, A., swaminathan, R.P. and Perme, B. 2003. Psychiatric and personality disorders in survivors following their first suicide attempt. *Indian J. psychiatry*, 45(2); 45-8

Foster, T., Gillespie, K. and McClelland, R. 1999. Risk factors form suicide independent of DSMIIIR Axis I disorder. Case

control psychological autopsy study in Northern Ireland. *British Journal of Psychiatry*, 175, 175-179.

Haw, C., Hawton, K., Houston, K., Townsend, E. 2001. Psychiatric and personality disorders in deliberate self-harm patients. *Br. J. psychiatry.*, 178; 48-54.

Joseph Raj, M.A., kumaraiah, V., Bhide, A.V. 2000. Social and clinical factors related to deliberate self-harm. *NIMHANS J*., 18(1and2):3-18.

Kumar, P.N.S., kuruvilla, K., Dutta, S., John, G. and Jayaseelan. 1995. Psychological aspects of attempted suicide: study from a medical intensive care unit. *Indian J Psychological Medicine*, 18(2):32-42.

Kumar, S.P.N. 1998. Age and gender related analysis of psychosocial factors in attempted suicide. I; 40:338-45.

Oquendo, M.A., Bongiovi-Garcia, M.E., Galfalvy, H., Goldberg, P.H., Grunebaum, M.F. and Burke, A.K. *et al*. 2007. Sex differences in clinical predictors of suicidal acts after major depression: a prospective study. *Am. J. Psychiatry*, 164; 134-41.

Tara, R. and Ramana Rao, G. V. 2014 August. Study of Psychiatric Co-Morbidity and Associated Psychosocial stress in attempted suicide patients. *Int. J. Cur. Res. Rev.*, Vol 6 Issue 18.

Rao, V.A. 1965. Attempted suicide: an analysis of one hundred and fourteen medical admissions into the Erskine hospital, Madurai, *Indian J. psychiatry*, VII (4):253-64.

Shailaja, S. *et al* 2011. Deliberate Self Harm and Psychiatric Co Morbidity: A Hospital Based *Study ASIAN J. EXP. BIOL.*, SCI. VOL 2(2) 367-371.

Srivastava, M.K., Sahoo, R.N., Ghotekar, L.H., Dutta, S., Danabalan, M., Dutta, T.K. and Das, A.K. 2004. Risk factors associated with attempted suicide: A case control study *Indian J. psychiatry*, 46(1)33-8.

Taber's cyclopedic medical dictionary. 1993. 17th ed. New Delhi: Jaypee brothers.*Thomas CL,* p.1905.

Unni, K.E.S. 2003. Human self destructive behaviour. In: Vyas JN, Ahuja N, editors. Textbook of postgraduate psychiatry. 2nd ed (reprint). Volume 2. New Delhi: *Jaypee brothers*, p.526-556.

World Health Organization. 1993. Suicide report, Geneva: *World Health Organization*.

Zlotnick, C., Mattia, J.I. and Zimmerman, M. 1999. Clinical correlates of self mutilation in a sample of general psychiatric patients. *J. Nerv. Ment. Dis*., 187:296301.

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