

FREQUENCY OF SUICIDAL IDEATION IN DIAGNOSED PATIENTS OF SCHIZOPHRENIA

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ABSTRACT

Objective: To investigate the frequency of suicidal ideation in diagnosed patients of schizophrenia.

Methodology: This cross sectional analysis was conducted on 150 in-door patients of Department of Psychiatry, Fatima Jinnah Medical University, Lahore and Ganga Ram Hospital, Lahore, who were diagnosed with schizophrenia from March 2016 to September 2016. Beck scale for suicidal ideation was used to figure out the frequency of suicidal ideation. Data was entered & analyzed by using SPSS version 23.0.

Results: A total of 150 patients were selected. Among these, 87 (58%) were male patients and remaining 63 (42%) were females. Mean age of the patients was 28.21 ±5.91 years. Suicidal ideation was found in 38 (25.33%) of schizophrenic patients. Male patients having suicidal ideation were 26/87 (29.88%) and female patients having suicidal ideation were 12/63 (19.04%). Severe suicidal ideation was found in 01 (1.6%) female and 5 (5.7%) male patients.

Conclusion: Suicidal ideation was found in a significant number of patients with schizophrenia. Suicidal ideation was more common and more severe in male patients compared to females.

Key Words: Schizophrenia, Suicidal ideation, Beck scale

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INTRODUCTION

HSuicide is a stigmatized behavior occurring in all regions of the world, accounting for 1.4% of all deaths worldwide. Globally, it is the 17th leading cause of death. In United States, more than 30,000 lives are taken by suicide every year. Ratio of people seeking mental health specialty services, in the weeks preceding their death, is considerably low¹. Intermediate phenotypes between genes and suicidal outcomes is thought to predispose people to commit suicide². The ever increasing rate of suicide indicates the insufficiency of available suicide risk assessment tools and a clear need of developing new strategies for prevention and early detection of suicidal behaviors³. In Pakistan, the increasing trend of committing suicide has made it a major public health problem. Though depression is an under-recognized and under-treated disease but it has a strong association with suicide⁴.

Schizophrenia is probably a mixture of several separate illnesses making it a severe, debilitating, persistent and complex psychiatric disorder. Disruption in perceptions, mood, thoughts and relationships with others are the various presentations of schizophrenic patients. As

for as the prognosis is concerned, about 43% patients suffer from an increased severity of symptoms without complete remission and 9% with lasting impairment leading to a substantial economic burden⁵. Worldwide prevalence of schizophrenia is estimated to be about 4.0 per 1000⁶.

Life expectancy of schizophrenic patients is much lower than expected; up to 40% of their deaths are attributed to suicide and unnatural causes⁷. Highest risk of suicide occurs soon after a psychotic episode, but a person should not go unguarded by not assessing suicidal risk long after first 1st presentation⁸. Incidence of suicidal attempt, re-attempt and lethality index of the attempt is quite high in patients with schizophrenia compared to other mood disorders⁹. Though schizophrenia awareness leads to a better medical compliance, but it is also associated with increased suicide risk. Wide variations exist on the suicide rates of schizophrenic patients but the commonly cited suicide rate among these individuals is about 10%.

Assessment and subsequent management of the risk for an impending disaster remains one of the fundamental skills in most aspects of clinical psychiatry but

are still under debate. Suicide constitutes about 5–13% of all schizophrenic patients' deaths. Being young, white, unmarried, male, with a previous history of substance abuse and suicidal attempts, a state of high pre-morbid function and post-psychotic depression make a person more susceptible to committing suicide compared to others. Social isolation, rejection, recent loss, hopelessness, hospitalization, treatment dependence, fear of further mental deterioration, no family support, stress, loss of faith in treatment, deteriorating health and economic instability are the further contributing risk factors for suicide in schizophrenia. Awareness of illness has a controversial role as a suicide risk factor. Protective factors should also be carefully evaluated in assessing suicide risk. Though neurobiological perspective offers but early recognition of suicidal tendency in schizophrenics is still not clearly possible¹⁰. This study was done to provide basic literature on the frequency of suicidal ideation and attempts in schizophrenic patients in Pakistani population. It will be helpful in the early suspicion, detection and treatment of suicidal intention in schizophrenic patients.

METHODOLOGY

One hundred and fifty patients were selected from the indoor unit of Department of Psychiatry, Fatima Jinnah Medical University, Lahore and Ganga Ram Hospital, Lahore, from March 2016 to September 2016. Sample size was calculated by online data source (openepi.com) using confidence interval at 95%, margin of error as 5% and p (percentage of previous study) as 9.7% suicidal attempts after schizophrenia. Inclusion criteria were diagnosed patients of schizophrenia of either gender and above 18 years of age. Patients with co-morbid psychiatric illnesses (anxiety disorders, mood disorders, somatoform disorders, as assessed by Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV); medical conditions (encephalitis, meningi-

tis); history of substance abuse, mental retardation and those receiving anti-psychotic treatment during last 06 months were excluded from our study.

After explaining the nature of study to each patient, informed consent was taken. Ethical approval was obtained from ethical committee of hospital. Each patient was interviewed in a comfortable setting ensuring his privacy. Address and phone number was noted. All patients who met the diagnostic criteria of DSM IV, TR for schizophrenia were labeled as schizophrenics. Thoughts about suicide with a wish to die without suicidal attempt were considered under the label of suicidal ideation and they were assessed by using Beck's scale for suicide ideation. Patients having score equal to or greater than 7 were considered having suicidal ideation. History of suicidal attempts and ideation was taken from patient and attendant in accordance with the scale for suicidal ideation and the data was collected on a predesigned Performa. Data was entered & analyzed by using software of SPSS version 23.0. The quantitative variables like age were calculated as mean and standard deviation. Qualitative variables like gender, suicidal attempts and ideation were calculated for frequencies & percentages.

RESULTS

A total of 150 patients were enrolled. Among these, 87 (58%) were male patients and remaining 63 (42%) were females. Mean age of the patients was 28.21 ± 5.91 years. Suicidal ideation was found in 38 (25.33%) of schizophrenic patients. Baseline Characteristics are shown in Table 1. Male patients having suicidal ideation were 26 out of 87 (29.88%) and female patients having suicidal ideation were 12 out of 63 (19.04%).

Severe suicidal ideation was found in 6 patients; 01 (1.6%) female and 5 (5.7%) males. Severity of suicidal ideation as assessed by Beck suicidal ideation scale is shown in Table 2.

Table 1: Demographic variables and suicidal ideation (n=150)

Characteristics		Frequency/Mean ± SD
Gender	Male	87 (58%)
	Female	63 (42%)
Age (years)		28.21 ± 5.91
Age Groups	18-25 years	50 (33.33%)
	26-33 years	77 (51.33%)
	34-41 years	19 (12.67%)
	>41 years	4 (2.67%)
Suicidal Ideation	Yes	25.33%
	No	74.67%

Table 2: Association between gender and severities of Ideation

Gender	No Ideation	Severities of Ideation			Total
		Mild to Moderate	Moderate to Severe	Severe	
Female % within Patient Gender	51 (81.0%)	7 (11.1%)	4 (6.3%)	1 (1.6%)	63 (100%)
Male % within Patient Gender	61 (70.1%)	6 (6.9%)	15 (17.2%)	5 (5.7%)	87 (100%)
Total % within Patient Gender	112 (74.7%)	13 (8.7%)	19 (12.7%)	6 (4.0%)	150 (100%)

DISCUSSION

Suicidal ideation was found in 25.33% of our schizophrenic patients with variable severity in accordance with Beck suicidal ideation scale. Suicidal ideation was more common and more severe in male patients compared to females. Similarly, different studies have narrated variability in suicidal ideation rates in schizophrenic patients. In the study conducted by Radomsky et al¹¹, the reported percentage of suicidal ideation was 37.6%.

A large number of studies exploring the proportion, rates and associations of suicide in schizophrenia since 2005 have been reviewed by Hawton et al¹². High IQ, high premorbid function and the first year of illness were found to be associated with increased suicidal risk in schizophrenic patients¹².

Similar results (10.1% of total schizophrenic deaths) were reported by Philips et al¹³. However, a study conducted by Palmer et al¹⁴ showed 4.9% life time risk of suicide in schizophrenic individuals and 22.3% of schizophrenic deaths were attributed to suicide by a study done by Osborn et al¹⁵. Young, white, unmarried, male sufferings from schizophrenia are more susceptible to commit suicide. A previous state of good healthy life, depression after diagnosis, substance abuse, passivity phenomena, delusions, command hallucination and previous history of suicidal attempts are the factors associated with increased risk of both successful and unsuccessful suicide attempts¹⁶.

A randomized controlled trial narrated that suicidal thoughts and plans, drug misuse, depressive symptoms and previous suicide attempts are the strong predictors of suicide in schizophrenic patients soon after the first episode of psychosis¹⁷. The chances of committing suicide increase by almost seven-fold in patients scoring >2 by using Beck Depression Inventory¹⁸. Contrary to other studies, delusions, auditory hallucinations and other positive symptoms were found to be associated with increased risk of suicide in schizophrenics in only one study¹⁹. Out of all schizophrenic patients who committed suicide, almost three quarters of them had at least one appointment with concerning physician within a week of their suicide as stated by studies conducted in the Finland and United States. Though suicidal risk never return to baseline of normal individuals in schizo-

phrenia persons but it peaks in the first three to six months of an episode and its inpatient management²⁰.

Lifetime risk of committing suicide in patients with schizophrenia is 4.9% in a recent meta analysis. A review by Pompili et al²¹ found a suicide rate of 6.8% in schizophrenic patients. When compared with general population, about eight fold increased risk of suicide in schizophrenia was found in a meta-analysis by Harris et al²². An increased death rate in schizophrenia from both natural and unnatural causes was shown. Suicide accounted for 28% of all excess deaths and 12% of all deaths in schizophrenia patients. Nordentoft et al²³ reported a decreased rate of suicide with an overall fall of suicide rate in general population of Danish people. Suicide attempts are much more common than successful suicides mounting up to 20–40% of schizophrenics.

Though WHO data show an increasing trend of suicide all around the world, the suicide rate of both general population and schizophrenics of Denmark and Norway is falling since 1990²⁴.

LIMITATIONS

Our study had few limitations. It was conducted at a single center and on a targeted population. It was not a randomized control trial but a cross sectional analysis. The results of this study, therefore, cannot be generalized.

CONCLUSION

Suicidal ideation was found in about one-fourth of the patients with schizophrenia. It was more common and more severe in male patients compared to females.

REFERENCES

1. Vannoy SD, Fancher T, Meltvedt C, Unützer J, Duberstein P, Kravitz RL. Suicide inquiry in primary care: creating context, inquiring, and following up. *Ann Fam Med* 2010; 8:33-9.
2. McGirr A, Alda M, Séguin M, Cabot S, Lesage A, Turecki G. Familial aggregation of suicide explained by cluster B traits: a three-group family study of suicide controlling for major depressive disorder. *Am J Psychiatry* 2009; 166:1124-34.

3. Johnston ME, Nelson C, Shrivastava A. Dimensions of suicidality: analyzing the domains of the SIS-MAP suicide risk assessment instrument and the development of a brief screener. *Arch Suicide Res* 2013; 17:212-22.
4. Khan MM, Mahmud S, Karim MS, Zaman M, Prince M. Case-control study of suicide in Karachi, Pakistan. *Br J Psychiatry* 2008; 193:402-5.
5. Goeree R, Farahati F, Burke N, Blackhouse G, O'Reilly D, Pyne J et al. The economic burden of schizophrenia in Canada in 2004. *Curr Med Res Opin* 2005; 21:2017-28.
6. Karagianis J, Novick D, Pecenek J, Haro JM, Dossenbach M, Treuer T et al. Worldwide-Schizophrenia Outpatient Health Outcomes (W-SOHO): baseline characteristics of pan-regional observational data from more than 17,000 patients. *Int J Clin Pract* 2009; 63:1578-88.
7. Hor K, Taylor M. Review: Suicide and schizophrenia: a systematic review of rates and risk factors. *J Psychopharmacol* 2010; 24:81-90.
8. Dutta R, Murray RM, Hotopf M, Allardyce J, Jones PB, Boydell J. Reassessing the long-term risk of suicide after a first episode of psychosis. *Arch Gen Psychiatry* 2010; 67:1230-7.
9. Narishige R, Kawashima Y, Otaka Y, Saito T, Okubo Y. Gender differences in suicide attempters: a retrospective study of precipitating factors for suicide attempts at a critical emergency unit in Japan. *BMC Psychiatry* 2014; 14:144.
10. Touskova T, Bob P. Consciousness, awareness of insight and neural mechanisms of schizophrenia. *Rev Neurosci* 2015; 26:295-304.
11. Radomsky ED, Haas GL, Mann JJ, Sweeney JA. Suicidal behavior in patients with schizophrenia and other psychotic disorders. *Am J Psychiatry* 1999; 156:1590-5.
12. Hawton K, Sutton L, Haw C, Sinclair J, Deeks JJ. Schizophrenia and suicide: Systematic review of risk factors. *Br J Psychiatry* 2005; 187:9-20.
13. Phillips MR, Yang G, Li S, Li Y. Suicide and the unique prevalence pattern of schizophrenia in mainland China: A retrospective observational study. *Lancet* 2004; 364:1062-8.
14. Palmer BA, Pankratz VS, Bostwick JM. The lifetime risk of suicide in schizophrenia: a reexamination. *Arch Gen Psychiatry* 2005; 62:247-53.
15. Osborn D, Levy G, Nazareth I, King M. Suicide and severe mental illnesses. Cohort study within the UK General Practice Research Database. *Schizophr Res* 2008; 99:134-8.
16. Hor K, Taylor M. Suicide and schizophrenia: a systematic review of rates and risk factors. *J Psychopharmacol* 2010; 24:81-90.
17. Tarrrier N, Haddock G, Lewis S, Drake R, Gregg L, SoCRATES Trial Group. Suicide behaviour over 18 months in recent onset schizophrenic patients: the effects of CBT. *Schizophr Res* 2006; 83:15-27.
18. Dell'Osso L, Casu G, Carlini M, Conversano C, Gremigni P, Carmassi C. Sexual obsessions and suicidal behaviors in patients with mood disorders, panic disorder and schizophrenia. *Ann Gen Psychiatry* 2012; 11:27.
19. Melle I, Johannesen JO, Friis S, Haahr U, Joa I, Larsen TK et al. Early detection of the first episode of schizophrenia and suicidal behavior. *Am J Psychiatry* 2006; 163:800-4.
20. Carlborg A, Winnerbäck K, Jönsson EG, Jokinen J, Nordström P. Suicide in schizophrenia. *Expert Rev Neurother* 2010; 10:1153-64.
21. Pompili M, Mancinelli I, Ruberto A, Kotzalidis GD, Girardi P, Tatarelli R. Where schizophrenic patients commit suicide: a review of suicide among inpatients and former inpatients. *Int J Psychiatry Med* 2005; 35:171-90.
22. Harris EC, Barraclough B. Suicide as an outcome for mental disorders. A meta-analysis. *Br J Psychiatry* 1997; 170:205-28.
23. Nordentoft M, Laursen TM, Agerbo E, Qin P, Høyer EH, Mortensen PB. Change in suicide rates for patients with schizophrenia in Denmark, 1981-97: Nested case-control study. *Br Med J* 2004; 329:261.
24. Addington DD, Azorin JM, Falloon IR, Gerlach J, Hirsch SR, Siris SG. Clinical issues related to depression in schizophrenia: an international survey of psychiatrists. *Acta Psychiatr Scand* 2002; 105:189-95.

CONTRIBUTORS

AB conceived the idea, planned the study, and drafted the manuscript. FA, JF and AF helped acquisition of data, did literature search, statistical analysis and critically revised the manuscript. All authors contributed significantly to the submitted manuscript.