

ORIGINAL ARTICLE

Risk factors for suicide in OCD Patients in a Tertiary care Hospital

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ABSTRACT

Obsessive compulsive disorder (OCD) is one of the common and chronic mental health disorder. Due to its chronicity it affects patient's occupational, social, personal and financial aspects. Although it starts with mostly anxiety symptoms, in long run depressive and impulsive symptoms are the comorbidities. Also OCD is an independent risk factor for suicide. This study aims at establishing a relationship between suicidal ideas and obsessive compulsive disorder along with determining the variability of socio demographic and clinical factors associated in patients with OCD with high risk and low risk suicidal intent. Additionally we tried to look into different risk factors and predictor of suicide in obsessive compulsive disorder patients so that preventive steps can be taken beforehand patient takes such a catastrophic step. The present study was a cross sectional assessment of suicidal risk in patents of OCD in a tertiary care hospital using YBOCS, BDI, BHS and BIS scales. Results shows that as the severity of obsessive compulsive symptoms increases, the risk of suicide also increases which is statistically significant. As severity of obsessive compulsive symptoms increase, the severity of depression and hopelessness also increases. Hence it may be concluded that suicidal behavior in OCD may be the result of associated hopelessness and depression rather than impulsiveness in the disease.

Keywords: Obsessive compulsive disorder, suicide, SSI, BIS

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INTRODUCTION

Obsessive compulsive disorder is a common mental health disorder known for its chronicity and stubbornness to standard treatment [1]. The illness is moreover complicated by the tendency of the patient to hide the symptoms rather presenting to mental health professional [2, 3]. With the aggravation of symptoms obsessive compulsive disorder takes a toll of patient's social and occupational dynamics and has a detrimental effect on all aspects of patient's life including social, mental, vocational and economical aspect [4, 5]. By virtue of their negative impact on different spheres of patient's life, they make him feel crippled and disabled and hard to comply with the society [6]. On long run this leads to major depressive disorder itself, hopelessness and despair resulting from sustained distress. Hence the probability of such patients resorting to attempt suicide is high [7].

Studies regarding obsessive compulsive patients with suicidal behavior have been few and most results are inconclusive [8, 9]. Moreover controversy arises when recent studies challenge the historical view of low risk of suicide in obsessive compulsive disorder patients, reporting significant risk in them [10, 11]. In a study, Torres et al. found thirty-six percent of the OCD patients reported lifetime suicidal thoughts, 20% had made suicidal plans, 11% had already attempted suicide, and 10% presented current suicidal thoughts [12]. However results of these studies could not suggest a cause of such high prevalence of suicide in obsessive compulsive patients.

Suicidal behavior is always conceptualized as a spectrum ranging from suicidal thought to attempted and completed suicide [13]. It comprises of death wishes, fleeting thoughts of life not worth living, planning suicide and attempting. The thoughts are more important than the act themselves as they predict an attempt with substantial accuracy and help mental health professionals to act prophylactically[14]. The obsessive compulsive disorder patients who subsequently develop thoughts of suicide carry probable risk factors as traumatic childhood and adulthood experiences, negative interfamily interactions, social isolation, decreased social solidarity, financial troubles, losses, despair, impulsivity, and migration, which have not been established with certainty in studies till date[15]. Similarly there have been important predictors of suicide in obsessive compulsive disorder which includes co morbid depression, feelings of hopelessness, co morbid personality disorder as obsessive compulsive personality disorder and previous history of self injury [16, 17].

Our study aims at establishing a relationship between suicidal ideas and obsessive compulsive disorder. Along with this we also look into different risk factors and predictor of suicide in obsessive compulsive disorder patients so that remedial steps can be taken beforehand patient takes such a catastrophic step.

MATERIALS AND METHODS

The present study was a cross sectional study. Patients were selected on consecutive basis for a period from December 2014 to January 2016. This study was carried out with the cases of OCD attending the outpatient section of the department psychiatry, IMS and SUM Hospital with the aim:

- To determine the variability of socio demographic and clinical factors in patients with OCD with high risk and low risk suicidal intent.
- To correlate the severity obsessive compulsive symptoms with the severity of depression, hopelessness and impulsivity in a sample of Obsessive Compulsive Disorder patients.

Inclusion criteria

In our study the patients fulfilling the following criteria's were included in the study.

- The participants will score at least 16 or more on Yale-Brown Obsessive Compulsive scale(Y-BOCS) [18]
- Duration of illness one year or more.
- The patients who were diagnosed as suffering from obsessive compulsive disorder according to ICD-10[19]
- The age should be 18 to 55 years.
- They must be able to read and write Oriya. / English

Exclusion criteria

- Patients with any other comorbid diagnosis along with Obsessive compulsive Disorder fulfilling ICD-10 criteria. However, depressive episode arising after the onset of OCD have been included in the study groups.
- History of mental retardation, psychosis, bipolar disorder, substance dependence or abuse disorder prior to this onset of obsessive compulsive symptoms or developing same while suffering from Obsessive compulsive Disorder are excluded.
- Presence of any serious physical disorder.

Procedure

The Patients attending the outpatient section of the Department of psychiatry, IMS and SUM Hospital were taken up consecutively who had given written consent for the study. YBOCS and Suicide Severity Index (SSI) were administered on these patients [20]. Those patients scored more than 16 on YBOCS had a score at least one was included in the study [14]. These patients were further divided into two groups depending upon their SSI scores. Patients scoring less than 6 were labeled as low risk suicidal intent group and those scored more than 6 were labeled as high risk suicidal intent group [21]. The socio demographic data of these patients were recorded and Beck Depression Inventory (BDI), Beck's hopelessness scale (BHS) and Barrat impulsiveness scale(BIS) were administered [22,23,24].

Ethical considerations

Approval was obtained from the ethical committee. Written informed consents were obtained from the patients. The patients were assured that study responses and data management would be confidential.

RESULTS AND DISCUSSION

The data were analyzed by using SPSS 20.0 version software. Descriptive statistics included frequency, percentage, mean, standard deviation, minimal and maximal numbers to describe the basic characteristics of the demographics and major study variables. Independent sample t-test and chi-square

were used to analyze differences in demographics and major study variables between outpatients with high suicidal risk and low suicidal risk.

Table 1: Frequency table

Variables		Frequency (%)
Sex	Male	49 (45.8%)
	Female	58(54.2%)
Education	Below matric	35(32.7%)
	Above matric	72(67.3%)
Occupation	Unemployed	59(55.1%)
	Employed	48(44.9%)
Domicile	Rural	51(47.7%)
	Urban	56(52.3%)
Income	Below 10,000	57(53.3%)
	Above 10,000	50(46.7%)

Table 1 shows the frequency of socio demographic variables in the study of population. The result shows the population contains more female patients, educated above metric, unemployed, residing in urban areas and having income below 10,000.

Table 2: Comparison between Socio demographic Variables and low and high risk group

Variables		Low risk	%	High risk	%	Chi Square	P value
Education	Below matric	24	68.57	11	31.42	.003	.957
	Above matric	49	68.00	23	32.00		
	Total	73		34			
Occupation	Unemployed	41	69.00	18	26.00	.097	.755
	employed	32	66.66	16	33.33		
	Total	73		34			
Income	Blow 10,000	37	65.00	20	35.00	.612	.432
	Above 10,000	36	72.00	14	28.00		
	Total	73		34			
Domicile	Rural	38	74.50	13	25.50	1.776	.183
	Urban	35	62.50	21	37.50		
	Total	73		34			
Sex	Male	13	51.02	36	48.97	12.342	.000**
	Female	38	82.75	20	17.24		
	Total	73		34			

* $p < 0.05$ (significant), ** $p < 0.01$ (highly significant)

Table 2 compared the risk of suicide among the socio demographic variables. The result shows that there is no significance difference in risk of suicide in the study group with respect to education, occupation, income and domicile. It was also found that male patients have higher suicide risk than females which was not statistically significant.

Table 3:

Age	Younger	±SD	Older	±SD	t	df	p
	34.95	9.87	27.56	8.24	3.79	105	.000**

* $p < 0.05$ (significant), ** $p < 0.01$ (highly significant)

Table 3 shows that higher risks of suicide are more in younger group than in older group which was statistically significant.

Table 4: Comparison between suicidal risk and OCD severity

Y-Bocs severity	Low risk	High risk	Total	X square	df	p
Sub clinical(0-7)	0	0	0	6.196	2	.045*
Mild(8-15)	0	0	0			
Moderate(16-23)	40(80%)	10(20%)	50(100%)			
Severe(24-31)	30(58.2%)	21(41.8%)	51(100%)			
Extreme(32-40)	3(50%)	3(50%)	6(100%)			
Total			107			

* $p < 0.05$ (significant), ** $p < 0.01$ (highly significant)

Table 4 compares the severity of obsessive compulsive symptoms and suicidal risk. This shows that as the severity of obsessive compulsive symptoms increases, the risk of suicide also increases (20% >42% >50%) and the result is statistically significant.

Table 5: Comparison of the severity of OCD with depression, level of hopelessness and impulsivity

Scales Used(SSI)	Low Risk (n=73) mean±s.d	High Risk (n=34) mean±s.d	t value	df	P value
Y-BOCS	23.36,4.61	25.97,4.25	2.797	105	.006**
BDI-II	18.68,2.49	20.50,3.59	3.037	105	.003**
BHS	6.95,1.89	11.09,2.23	9.947	105	.000**
BIS	61.12,20.02	79.38,8.74	5.086	105	.000**

* $p < 0.05$ (significant), ** $p < 0.01$ (highly significant)

Table 5 compares the severity of obsessive compulsive disorder, depression, level of hopelessness and impulsivity between the low suicide risk group and high suicide risk group. This shows high risk of suicide group has more severity of obsessive compulsive disorder, higher level of depression, hopelessness and impulsivity.

Table 6: Correlation of YBOCS severity with other scales

Correlation between YBOCS	Coefficient correlation	P value
BDI	0.311	.001**
BHS	0.193	.046*
BIS	0.100	.306
SSI	0.338	.000**

* $p < 0.05$ (significant), ** $p < 0.01$ (highly significant)

Table 6 shows the correlation of scores of severity of OCD (YBOCS) with Beck depression inventory (BDI), Beck hopelessness scale (BHS), Barrat impulsiveness scale (BIS) and Beck suicidal ideation scale (SSI). No statistically significant correlation was found between Barrat Impulsivity scale and YBOCS whereas positive correlation was found between BDI, BHS and YBOCS. This table depicts the values of Pearson correlation coefficient between YBOCS scores with the scores of the scales such as BDI, BHS and SSI, which was found to be positive and found statistically significant.

DISCUSSION

Obsessive compulsive disorder is a multi-dimensional disorder involving various aspects of behavioral and psychological problems. Among them, suicidal behavior is least considered and studied. The present study was carried out on OPD basis involving a total of 107 patients out of which 58 patients were females (n=58, 54.2%) depicting female preponderance in OCD, which is consistent with earlier studies in India [25].

As the study was conducted in urban set up, majority of population were hailing from urban domicile. It was also found that majority of the study group were unemployed, as most of the females (n=59, 55.1%) were house wives and some males in younger age group were students. Majority of patients in our study group had an average income below 10,000 and these data is consistent with the average family income of the patients attending other departments of this hospital.

Most of the previous studies considered that the SSI score ≥ 6 is a valid indicator for suicidal behavior. Considering this our study group were divided into two groups i.e. low risk < 6 in SSI score and high risk ≥ 6 in SSI [21]. Those who score < 6 in SSI scale are considered to have less chances of attempting suicide, hence put in low risk group. Most of the studies in literature concluded there was no significant difference in any of the socio demographic variables in obsessive compulsive patients having high risk and low risk of suicide.

In our study obsessive compulsive patients, higher risk of suicide was found in those having higher education, employed, low income and belonging to urban area but the result was not statistically significant.

Torres et al also found suicidal ideations were more common in patients having higher education [12]. As obsessive compulsive disorder causes significant deterioration in socio occupational functioning, most of the employed and educated patients were prone to develop high risk suicidal intent. In our study it was found higher risk of suicidal intent in male patients than in female patients and the result was statistically significant. In previous studies the incidence of suicidal attempt was more in females than in males and there were high rates of completed suicide reported among males in patients with obsessive compulsive

disorder [26]. In our study male patients are having higher on suicidal ideation than female patients. This may be due to the reason that most of the female patients in our study were house wives and their low suicidal intent may be explained on the basis of familial responsibilities. Whereas male patients in our study group were of younger age and higher suicidal intent may be due to immaturity of coping methods. Our study also found that younger patients have high risk of suicidal ideation in obsessive compulsive disorder than older patients. The results are consistent with previous studies [27]. Younger patients tend to have high risk of suicidal ideation due to poor social support and immature coping strategies. In this study, the results showed that as the severity of obsessive compulsive symptoms increases the percentage of risk of suicide also increases accordingly. Similar findings also reported earlier which showed higher mean suicidal ideation in patients having higher scores in YBOCS and again reflected in the different studies [21, 25, 28]. Higher suicidal risk in OCD patients, who score more in YBOCS suggest, as the varieties of time consuming obsessions and compulsions increases there is greater degree of social and occupational impairment leading to desperation. This may cause higher suicidal ideation. In our study patients with high risk suicidal ideation have scored more on BDI suggesting higher level of depression and the result is statistically significant. Depression is associated with suicidal ideation and is itself a known predictor of suicide and is a common co morbid diagnosis [29, 30]. Our study found significant correlation between YBOCS severity and increased level of depression, hopelessness and suicidal intent which supports previous study [7]. There was no significant correlation between the severity of YBOCS and BIS. This suggests that severity of obsessive compulsive symptoms does not enhance the level of impulsivity. But as the severity of obsessive compulsive symptoms increase, the severity of depression and hopelessness also increases. Hence it can be said that risk factor for suicidal behavior in OCD are associated hopelessness and depression rather than impulsiveness in the disease.

LIMITATIONS

Suicide is a multi factorial entity influenced by various psychosocial and personality factors, which have not been taken into account in our study. Moreover this study was a cross sectional study and could not have assessed varying level of suicidal ideation during the course of disease [31]. Other predictors such as economic stress, family dysfunction, legal issues and lack of material resources could have been included in the study. As the sample was taken consecutively, uniform distribution of population in terms of sex, occupation and severity of illness was not possible.

CONCLUSION

Risk factor for suicide in OCD is as varied as that of suicide independently. The risk of suicide associated with OCD is strong enough to be ignored. Hence detailed assessment of suicide in OCD patients should be routinely practiced by mental health professionals. Special attention to risk factors as early age of onset, severity of obsessive compulsive symptoms, comorbid depression and associated hopelessness should be given while screening OCD patients for suicide. In future studies it would be quite interesting to look into the change of suicidal ideation with the treatment and improvement of obsessive compulsive symptoms.

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COMPETING INTEREST

The authors have declared that no competing interest exists”.

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