

# A Hospital Based Study to Assessed the Prevalence of Obsessionality, Psychiatric Co-Morbidity and Socio-Demographic Profile of Patients With Major Depressive Disorder

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## ABSTRACT

**Background:** Depression may become a serious health condition, especially when it is moderate or severe intensity and long-lasting. Psychiatric comorbidities are commonly associated with MDD. There is a critical need to better understand factors associated with emerging depressive symptoms, in order to develop strategies for addressing these symptoms, and to prevent the onset of more severe depressive disorders with OCD (obsessionality). The aim of this study to assess the prevalence of obsessionality, psychiatric comorbidity and socio-demographic profile of patients with major depressive disorder.

**Materials & Methods:** A hospital based prospective study done on 30 adult patients with major depressive disorder using DSM-5, was considered for the study in department of psychiatry at Government District Hospital, Shriganganagar, Rajasthan, India during one year period. Socio-demographic profile of these patients was assessed using a semi-structured proforma. Patients were evaluated for psychiatric co-morbidity using DSM-5. Assessment of the severity of depression, anxiety and obsessionality was done using Hamilton Scale for Depression (HAM-D), Hamilton Scale for Anxiety (HAM-A), Yale-Brown Obsessive Compulsive Scale (YBOCS) scales, respectively and Mini International Neuropsychiatric Interview (MINI) scale for another psychiatric comorbidity.

**Results:** In present study 73.33% patients had psychiatric comorbidity. Out of which, dysthymia and panic disorder was 20% each. ADS was 13.3% and OCD 10%, social phobia and generalized anxiety disorder 6.7% and 3.3% respectively. Individuals in the study had 50% very severe depression, 20% severe depression, 16.66% moderate depression and 13.3% had mild depression. Anxiety scores in patients were 33.3%

severe, 30% were moderate and 23.3% were mild. Majority of patients were subclinical 40%, 26.66% were mild and 20% were moderate. Suicidal risk among patients were high risk 43.3%, 40% were low risk and 16.66% moderate risk. Psychiatric comorbidity was significantly correlated with HAM-D scores & HAM-A scores ( $p=0.0489$  &  $p=0.0345$  respectively). **Conclusion:** It can be concluded that severity of depression, anxiety and suicidal risk were significantly correlated with psychiatric comorbidity as assessed by rating scales. This study highlights the need for awareness about MDD and psychiatric co-morbidity among patients, family members and medical professionals for early detection and intervention, efficient management and prevention of relapse and thereby improved quality of life for the patient and caregivers by reducing burden.

**Keywords:** MDD, Psychiatric co-morbidity, HAM-D, HAM-A, DSM-5.

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## INTRODUCTION

Depression is a significant contributor to the global burden of disease and affects people in all communities across the world.<sup>1</sup> Depression is estimated to affect 350 million people. The World Mental Health Survey conducted in 17 countries found that on average about 1 in 20 people reported having an episode of depression in the previous year. Depressive disorders often start at a young age; they reduce people's functioning and often are recurring. For these reasons, depression is the leading cause of

disability worldwide in terms of total years lost due to disability. The demand for curbing depression and other mental health conditions is on the rise globally.<sup>2</sup>

Depression may become a serious health condition, especially when it is moderate or severe intensity and long-lasting. It can cause the affected person to function poorly at work, at school and in the family. Depression can lead to suicide which is one of the psychiatric emergencies. Approximately 8,00,000 people die due

to suicide every year. Suicide is the second leading cause of death in 15-29-year-old individuals. Fewer than half of those affected globally receive known, effective treatments. Lack of resources, trained health-care providers, inaccurate assessment and social stigma associated with mental disorders are some of the barriers for adequate care. Since global burden of depression is on rise, WHO called for comprehensive, coordinated response from all the countries to combat mental disorders.<sup>3</sup>

Depression is associated with significant comorbidity like anxiety, substance use disorder, impulse control disorders. There has been an increasing interest in the pathogenesis of MDD over the last decades but, despite several advances in aetiology, the pathogenesis is still not completely understood. Studies in the recent decades have shown that MDD with comorbid psychiatric disorders plays an important role in the management.<sup>4</sup>

Psychiatric comorbidities are commonly associated with MDD. They may affect clinical course,<sup>5</sup> suicidal risk, treatment,<sup>6</sup> and cause economic burden.<sup>7</sup> Untreated comorbidities can increase both direct<sup>8</sup> and indirect costs<sup>9</sup> of MDD care. The presence of comorbid MDD and anxiety disorders resulted in greater disease severity and diminished treatment response.<sup>10</sup> The presence of comorbidity increases the chronicity of each disorder, slows recovery, and increases the likelihood of a recurrence once the patient has recovered.<sup>11,12</sup> Therefore, early detection and treatment of psychiatric comorbidities are crucial in management of MDD. There is a critical need to better understand factors associated with emerging depressive symptoms, in order to develop strategies for addressing these symptoms, and to prevent the onset of more severe depressive disorders with OCD (obsessionality). The aim of this study to assess the prevalence of obsessionality, psychiatric co-morbidity and socio-demographic profile of patients with major depressive disorder.

## MATERIALS & METHODS

A hospital based prospective study done on 30 adult patients with major depressive disorder using DSM-5, was considered for the study in department of psychiatry at Government District Hospital, Shriganganagar, Rajasthan, India for one year period. Adult patients who presented to the OPD services at the hospital with major depressive disorder were evaluated and recruited for the study after obtaining written informed consent.

**Methods:** Socio-demographic profile of these patients was assessed using a semi-structured proforma. Patients were evaluated for psychiatric co-morbidity using DSM-5. Assessment of the severity of depression, anxiety and obsessionality was done using Hamilton Scale for Depression (HAM-D), Hamilton Scale for Anxiety (HAM-A), Yale-Brown Obsessive Compulsive Scale (YBOCS) scales, respectively and Mini International Neuropsychiatric Interview (MINI) scale for another psychiatric comorbidity.

**Mini International Neuropsychiatric Interview Version 5.0.0 (MINI)<sup>13</sup>:** The MINI is a standardized clinical diagnostic interview schedule for DSM-IV Axis-I disorders. It can be reliably administered by trained interviewers. It is validated to use as a gold standard for diagnosis of comorbidities in psychiatric patients. Comorbidities were classified into the following based on their common existence with MDD: dysthymia, anxiety disorder, substance and alcohol use disorder, psychotic disorder, antisocial personality, disorder, and eating disorder. Suicidal risk was

assessed by the suicidality module of the MINI. The suicidality module is a six-item questionnaire that investigates the presence of prior suicidal attempts, suicidal ideation, and behavior in the past month. The total score is used to grade the suicidal, risk (where score 1–5= low risk, score 6–9= moderate risk, and score >10= high risk).

**Hamilton Depression Rating Scale-17 (HAM-D 17)<sup>14</sup>:** This is a clinician rated scale aimed at assessing depression severity among patients. The original HAM-D included 21 items, but the last four items (diurnal variation, depersonalization / derealisation, paranoid symptoms, and obsessive-compulsive symptoms) should not be counted toward the total score because these symptoms are either uncommon or do not reflect depression severity. Therefore, the 17-item version of the HAM-D has become the standard for clinical trials and, over the years, the most widely used scale for controlled clinical trials in depression. There is some consensus for interpretation of the total scores: very severe, >23; severe, 19–22; moderate, 14– 18; mild, 8–13; and no depression, 0-7.

**Hamilton Anxiety Rating Scale (HAM-A)<sup>15</sup>:** The HAM-A is a clinician administered, typically semi-structured interview designed to assess anxiety symptoms not specific to any disorder, which has demonstrated adequate reliability and validity. It has 14 items, each measuring specific anxiety symptom clusters (e.g., tension, insomnia, respiratory) which are rated by the interviewer on a scale from 0 (not present) to 4 (very severe/incapacitating). A score of 8-14 indicates mild anxiety, 15- 23 indicates moderate anxiety and a score more than 24 indicates severe anxiety.

**Yale Brown Obsessive Compulsive Syndrome Scale (YBOCS)<sup>16</sup>:** The YBOCS is a clinician administered semistructured scale for OCD, which has demonstrated adequate reliability and validity. It has 10 items, to assess severity of obsessions (1-5 items) and compulsions (6-10 items). Each item score ranging from 0 (no symptoms) to 4 (extremely severe) with respect to time spent, interference, distress, resistance and control with total score of 0 to 40. Cut-off scores being 0-7 subclinical, 8-15 mild, 16-23 moderate, 24-31 severe and 32-40 extreme. The scale has shown to be sensitive to treatment effects.

**Statistical Analysis:** Results on continuous measurements are presented on Mean  $\pm$  SD (Min-Max) and results on categorical measurements are presented in Number (%). Significance is assessed at 5 % level of significance.

## RESULTS

In present study 73.33% patients had psychiatric comorbidity. Out of which, dysthymia and panic disorder was 20% each. ADS was 13.3% and OCD 10%, social phobia and generalized anxiety disorder 6.7% and 3.3% respectively (table 1).

Individuals in the study had 50% very severe depression, 20% severe depression, 16.66% moderate depression and 13.3% had mild depression. Anxiety scores in patients were 33.3% severe, 30% were moderate and 23.3% were mild. Majority of patients were subclinical 40%, 26.66% were mild and 20% were moderate. Suicidal risk among patients were high risk 43.3%, 40% were low risk and 16.66% moderate risk (table 2).

Psychiatric comorbidity was not significant with socio-demographic profile of patients show in table no. 3. Psychiatric comorbidity was significantly correlated with HAM-D scores & HAM-A scores ( $p=0.0489$  &  $p=0.0345$  respectively) (table 4).

Table 1: Distribution According to Psychiatric Co morbidity

Psychiatric Co morbidity	No. of patients (n=30)	Percentage
Nil	8	26.66%
Yes	22	73.33%
Dysthymia	6	20%
Panic disorder	6	20%
ADS	4	13.3%
OCD	3	10%
Social phobia	2	6.7%
Generalized anxiety disorder	1	3.3%

Table 2: Distribution According To Severity Of HAM-D/HAM A/YBOCS /SUICIDAL SCORES

Score	No. of patients (n=30)	Percentage
<b>HAM-D Severity</b>		
Normal	0	0%
Mild	4	13.3%
Moderate	5	16.6%
Severe	6	20%
Very Severe	15	50%
<b>HAM-A severity</b>		
Normal	4	13.3%
Mild	7	23.3%
Moderate	9	30%
Severe	10	33.3%
<b>YBOCS Severity</b>		
Sub clinical	12	40%
Mild	8	26.66%
Moderate	6	20%
Severe	3	10%
Extreme	1	3.3
<b>Suicidal Severity</b>		
Low risk	12	40%
Moderate risk	5	16.66%
High risk	13	43.33%

Table 3: Correlation of Socio-demographic variables to Psychiatric Co morbidity

Variables	Psychiatric Co morbidity		Total (n=30)	P value
	Absent (n=8)	Present (n=22)		
<b>Age in years</b>				
21-30	4	7	11	>0.05
31-40	3	7	10	
41-50	0	7	7	
51-60	1	1	2	
<b>Gender</b>				
Male	2	8	10	>0.05
Female	6	14	20	
<b>Marital Status</b>				
Single	1	3	4	1.000
Married	7	17	24	
Separated	0	0	0	
Divorced	0	1	1	
Widowed	0	1	1	
<b>Years of formal education</b>				
<6	2	5	7	>0.05
7-12	3	10	13	
13-24	3	7	10	
<b>Education status</b>				
Illiterate	0	0	0	
Able to sign but no formal education	0	2	2	
Primary school	1	2	3	
Secondary school	1	2	3	
High school	2	6	8	

Pre university/diploma	3	5	8	
Graduate	1	3	4	>0.05
Postgraduate	0	2	2	
<b>Locality</b>				
Urban	3	7	10	
Rural	5	15	20	>0.05
<b>Religion</b>				
Hindu	7	21	28	
Muslim	0	1	1	
Others	1	0	1	>0.05
<b>Occupation</b>				
Unemployed	3	8	11	
Farmer	0	1	1	
Unskilled	0	1	1	
Semiskilled	3	6	9	
Skilled	1	3	4	
Student	1	1	2	
Professional	0	1	1	>0.05
<b>Monthly Income</b>				
≤10000	3	5	8	
10001-20000	2	10	12	
20001-30000	2	4	6	>0.05
>30000	1	3	4	

Chi-Square test /fisher Exact test

Table 4: Psychiatric Comorbidity in relation to HAM-D/HAM-A SCORES

		Psychiatric Comorbidity		P-value
		Nil (N=8)	Yes (N=22)	
HAM-D	Mild	3	1	<0.05*
	Moderate	2	3	
	Severe	1	5	
	Very severe	2	13	
HAM A	Normal	3	1	<0.05*
	Mild	3	4	
	Moderate	1	8	
	Severe	1	9	

## DISCUSSION

Major depressive disorder is the common psychiatric disorder. It results in substantial socio-economic burden yet is often neglected due to lack of awareness among patients and family members. The current study was done with a view to study the prevalence of obsessionality and psychiatric comorbidity, and the socio-demographic profile among adult patients with MDD.

Hazarika J et al<sup>17</sup> et al reported in their study, majority of population between 21-40 (50.60%) compared to present study which reported 70%. The mean age was 38.87 years and was comparable to present study which reported 37.23 years. The findings were comparable to study Lim A-Y et al<sup>18</sup>, who reported majority of the patients in their study between age group between 18-29 years (29.79%) and least (6.3%) in 60-65 years. These results were comparable with present study which had 36.66% and 6.66% respectively. Age was significantly correlated with severity of anxiety in MDD. It was found that the prevalence was more in younger population. Age was not significantly correlated with psychiatric comorbidity which was in contrast to findings of Thailand study<sup>19</sup> which reported younger age group to be significantly associated with psychiatric comorbidity.

66.7% of present study sample were composed of females (n=20) with a female to male ratio of 2:1, which is comparable to the findings of study done by Lim A-Y et al<sup>18</sup> who reported 62% in

their study population but was less than that reported by Thaipisuttikul P et al<sup>19</sup> which reported 80%. Gender was significantly correlated with severity of depression and obsessionality, with majority of them having severe to very severe depression, compared to men. Yet when it came to psychiatric comorbidity, gender was not significantly associated, similar to the study done by Thaipisuttikul P et al.<sup>19</sup>

Twenty-two patients (73.33%) suffered from at least one diagnosable psychiatric illness. This is comparable to the findings of Kessler et al<sup>20</sup> who reported a prevalence of 72.1%. However, present study findings were in between that of Vantaa Depression Study which reported 79%<sup>21</sup> and Thailand Study<sup>19</sup> which reported 35.3%. There were no studies from India on prevalence of psychiatric co-morbidity among patients with MDD.

Majority of the study sample had comorbid anxiety disorders, among them, panic disorder in 20%, OCD in 10%, social phobia in 6.7% and generalised anxiety disorder was present in 3.3% of the patients. Thus, anxiety disorders were diagnosed in 40% of the patients. This finding were comparable with Vantaa Depression Study<sup>21</sup> which reported 57% in their study. Present study was in contrast to Thailand study<sup>19</sup> which reported 21.1%. Both studies were comparable to present study as their study also had higher prevalence of anxiety disorders.

In the current study, depressive disorders (dysthymia) accounted for 20% which was comparable to Thailand study<sup>19</sup> which reported 19.5% individual with dysthymia. Present study finding were similar to study done in Thailand<sup>19</sup> to assess risk of suicide using MINI reported higher prevalence of suicidal risk in comorbid psychiatric illness. Among them dysthymia, panic disorder, OCD were highly associated with suicidal risk. Present study reported higher prevalence of psychiatric comorbidity and also associated increased risk of suicide which was comparable to findings of Thailand study<sup>19</sup> which reported high prevalence of psychiatric comorbidity (35.3%) and 44.8% of patients having suicidal risk in psychiatric comorbidity group compared to without psychiatric comorbidity group 25.2%. 100% of the people with comorbid OCD had high suicidal scores and 100% of those with GAD had moderate suicidal scores. Present study shows the high rate of prevalence of psychiatric comorbidity like, dysthymia, panic disorder, OCD, ADS and GAD among patients with MDD, which needs to be brought to the awareness of the sufferer and carer for adequate treatment and improvement in the quality of life of the patient.

## CONCLUSION

It can be concluded that severity of depression, anxiety and suicidal risk were significantly correlated with psychiatric comorbidity as assessed by rating scales. This study highlights the need for awareness about MDD and psychiatric co-morbidity among patients, family members and medical professionals for early detection and intervention, efficient management and prevention of relapse and thereby improved quality of life for the patient and caregivers by reducing burden.

## REFERENCES

1. Reddy MS. Depression: The disorder and the burden. *Indian J Psychol Med.* 2010;32:1-2.
2. Marcus M, Yasamy MT, Ommeren VM, Chisholm D, Saxena S. *Depression: A Global Public Health Concern.* Geneva: World Health Organization; Department of Mental Health and Substance Abuse; 2012.
3. Depression [Internet]. World Health Organization. 2017 [cited 12 April 2017]. <http://www.who.int/mediacentre/factsheets/fs369/en/>
4. Kessler R, Berglund P, Demler O, Jin R, Koretz D, Merikangas K et al. The Epidemiology of Major Depressive Disorder Results From the National Comorbidity Survey Replication (NCS-R). *JAMA.* 2003;289(23):3095.
5. Garcia-Toro M, Rubio JM, Gili M, et al. Persistence of chronic major depression: a national prospective study. *J Affect Disord.* 2013;151(1):306–312.
6. Penninx BW, Nolen WA, Lamers F, et al. Two-year course of depressive and anxiety disorders: results from the Netherlands Study of Depression and Anxiety (NESDA). *J Affect Disord.* 2011;133(1–2):76–85.
7. McIntyre RS, Rosenbluth M, Ramasubbu R, et al; Canadian Network for Mood and Anxiety Treatments (CANMAT) Task Force. Managing medical and psychiatric comorbidity in individuals with major depressive disorder and bipolar disorder. *Ann Clin Psychiatry.* 2012;24(2):163–169.
8. Asche CV, Joish VN, Camacho F, Drake CL. The direct costs of untreated comorbid insomnia in a managed care population with major depressive disorder. *Curr Med Res Opin.* 2010;26(8):1843–53.

9. Schofield DJ, Callander EJ, Shrestha RN, Passey ME, Percival R, Kelly SJ. The indirect economic impacts of co-morbidities on people with depression. *J Psychiatr Res.* 2013;47(6):796–801.
10. Penninx BW, Nolen WA, Lamers F, et al. Two-year course of depressive and anxiety disorders: results from the Netherlands Study of Depression and Anxiety (NESDA). *J Affect Disord.* 2011;133(1–2):76–85.
11. Brown C, Schulberg HC, Madonia MJ, et al. Treatment outcomes for primary care patients with major depression and lifetime anxiety disorders. *Am J Psychiatry* 1996;153:1293–1300.
12. Kessler RC, Stang PE, Wittchen HU, et al. Lifetime panic-depression comorbidity in the National Comorbidity Survey. *Arch Gen Psychiatry* 1998;55:801–808.
13. Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, et al. The Mini international neuropsychiatric interview (MINI): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *J Clin Psychiatry.* 1998;59:22-33.
14. Hamilton M. The assessment of anxiety states by rating. *Br J Med Psychol.* 1959;32(1):50-55.
15. Hamilton M. A rating scale for depression. *J neurol neurosurg psychiatry.* 1960 Feb; 23:56-62.
16. Goodman WK, Price LH, Rasmussen SA, Mazure C, Fleischmann RL, Hill CL, Heninger GR, et al. The Yale-Brown obsessive compulsive scale. I. development, use, and reliability. *Arch Gen Psychiatry.* 1989 Nov; 46(11):1006-11.
17. Hazarika J, Kalita KN, Sharma M, et al. Sociodemographic Correlates of Unipolar and Bipolar Depression in North-East India: A Cross-sectional Study. *Indian J Psychol Med.* 2017;39(1):46-51.
18. Lim AY, Lee AR, Hatim A, et al. Clinical and sociodemographic correlates of suicidality in patients with major depressive disorder from six Asian countries. *BMC Psychiatry.* 2014;14:37.
19. Thaipisuttikul P, Ittasakul P, Waleeprakhon P, Wisajun P, Jullagate S. Psychiatric comorbidities in patients with major depressive disorder. *Neuropsychiatr Dis Treat.* 2014; 10: 2097–2103.
20. Kessler R, Berglund P, Demler O, Jin R, Koretz D, Merikangas K et al. The Epidemiology of Major Depressive Disorder. *JAMA.* 2003;289(23):3095.
21. Melartin T, Rytsala H, Leskela U, Lestela-Mielonen P, Sokero T, Isometsa E. Current Comorbidity of Psychiatric Disorders Among DSM-IV Major Depressive Disorder Patients in Psychiatric Care in the Vantaa Depression Study. *J Clin Psychiatry.* 2002;63(2):126-134.

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