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SEVERITY AND PATTERN OF DEPRESSION IN MAJOR DEPRESSIVE DISORDER WITH AND WITHOUT DELUSIONS

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ABSTRACT

BACKGROUND Major depressive disorder (MDD) is a common psychiatric illness. Severity and pattern of depression in MDD with and without delusions has been a subject of research since many years. This study compares two groups of patients of MDD with and without delusion with respect to socio-demographic features, clinical variables, pattern and severity of depression.

SUBJECTS AND METHODS: Sixty eight patients fulfilling DSM-IV^{TR}criteria for MDD were selected. Among them 35 patients were with delusions (Group-1) and 33 patients were without delusions (Group-2). Socio-demographic details and clinical variables were assessed. Delusions were identified and the two groups were compared with respect to Socio-demographic features, clinical variables, pattern and severity of depression.

RESULTS: Significant number of group-I patients were aged 33.94±11.88 years. Duration of illness from the onset of first episode, late insomnia, loss of insight and melancholic features were significantly more in group-1

patients with significantly severe depression. In group-2 patients history of previous admissions was significantly more.

CONCLUSION: Major depressive disorder with delusion appears to be a subgroup of MDD having severe depression.

KEYWORDS: Major depressive disorder, delusion, Melancholic features.

INTRODUCTION

Major depressive disorder (MDD) is a common psychiatric illness. The prevalence of MDD in adults in community samples varies from 5 - 9% for women and from 2-3% for men. The life time risk for MDD in community samples varies from 10 - 25% for women and from 5 - 12% for men. About 12.5 - 66% of patients diagnosed as MDD have psychotic features in the form of delusions and/or hallucinations. [1] Whether MDD with psychotic features is a separate entity has been a subject of research since many years. Socio-demographic factors, duration and severity of illness, family history of psychiatric illness, responses to various methods of treatment and course and outcome have been studied and compared in patients of MDD with and without delusions and have yielded conflicting results.

The presence of delusions in MDD reflects severe disease and is a poor prognostic indicator. There is a suggestion that MDD with delusions may be distinct in its pathogenesis.[2]Nosologically, psychotic or delusional depression does not constitute a separate diagnostic category. Psychotic Depression is now considered a subtype of mood disorder characterized by the appearance of delusions and/or hallucinations during the course of a Major depressive episode.[3]

There is paucity of literature in this area of research in India. In this background the present study is formulated to assess the socio-demographic features, clinical variables pattern and severity of depression in patients suffering from MDD with and without delusions.

SUBJECTS AND METHODS

The study group consisted of two groups diagnosed based on DSM – IV^{TR} (Diagnostic and Statistical Manual of Mental Disorders, Text Revision of Fourth edition) criteria. [4] Group-1 consists of 35 cases of MDD with delusions and Group- 2 consists of 33 cases of MDD without delusions. Patients of both sex aged between 18-60years were included. Patients with chronic and disabling medical illness, alcohol and substance dependence, personality disorder, depression secondary to other psychiatric illness, depression with catatonic sub type, bipolar affective disorder with current episode depression and MDD only with hallucinations were excluded from the study. Socio-demographic details like age, sex, address, religion, education, occupation, marital status, family type and socio-economic status were recorded. Clinical variables consisting of age of onset of illness, duration of index episode, duration from the onset of first episode, history of previous episodes and previous admissions, history of previous suicide attempts, family history of any mental illness and melancholic features as per DSM-IV^{TR} were recorded. Hamilton Depression Rating Scale (HAM-D) [5] was administered to assess the pattern and severity of depression. Delusions were elicited using Psychosis Disorganisation items of Schedule for Affective Disorder and Schizophrenia (SADS). [6]Socio-demographic data, clinical variables, pattern and severity of depression in patients were assessed among two groups and compared.

Statistical Analysis

Results obtained were analysed using descriptive and inferential statistical method. Chi-square test was used for categorical data and student's 't' test for continuous data.

RESULTS

The mean age was found to be greater in group-1 compared to group-2 and this difference is statistically significant. Group-1 had almost equal distribution of male and female sexes. In group-2 females were more in number and the difference between the two groups was not statistically significant. Majority of the patients in group-1 were from rural and were married compared to group-2. The difference between the two groups was not

statistically significant. With regard to education the sample was divided into three categories; illiterates, up-to tenth standard and above tenth standard. The difference between the two groups with respect to different levels of education was not statistically significant. Majority of patients in both group were unskilled workers from Hindu religion, nuclear family, with lower socio economic status and the difference between two groups was not statistically significant (Table-1).

TABLE – 1: Comparison of Socio-Demographic features of MDD with (Group - 1) and without Delusion (Group - 2)

VARIABLE		GROUP- 1 (N=35)	GROUP – 2 (N=33)	STATISTICAL ANALYSIS
Age (years)		33.94 ±11.88	28.3 ± 10.3	t = 2.10, d.f =66, p< 0.05 , Significant
Sex	**Male**	18 (51.43)	13 (39.39)	X^2 =0.99 d.f.=1 Not significant
	Female	17 (48.57)	20 (60.61)	
Place	**Urban**	8 (22.86)	11 (33.33)	X^2= 0.93 d.f =1 Not significant
	Rural	27 (77.14)	22 (66.67)	
Religion	**Hindu**	31 (88.57)	31(93.94)	X^2=0.61* d.f =1 Not significant
	Muslim	4 (11.43)	2 (6.06)	
Education	**Illiterate**	6 (17.14)	5 (15.15)	X^2= 0.48 d.f =2 Not significant
	Up to S.S.L.C	17(48.57)	14 (42.42)	
	Above S.S.L.C	12 (34.29)	14 (42.42)	
Marital Status	**Married**	26 (74.29)	20 (60.61)	X^2=1.45 d.f =1 Not significant
	Unmarried	9 (25.71)	13 (39.39)	
Type of family	**Nuclear**	22 (62.86)	22 (66.67)	X^2=0.11 d.f =1 Not significant
	Joint	13(34.14)	11(33.33)	
Occupation	**Skilled**	12 (34.29)	7 (21.21)	X^2=1.44 d.f =1 Not significant
	Unskilled	23(65.71)	26 (78.79)	
Socio economic status	**High**	12(34.29)	9 (27.27)	X^2=1.18 d.f =2 Not significant
	Middle	5(14.29)	8 (24.24)	
	Low	18(51.43)	16 (48.48)	

1) Values in Parenthesis are Percentages.
2) * With Yates Correction

The mean age of onset of illness, was more in group-1 compared to group-2 but the difference between the two groups was not statistically significant. The mean duration of illness of index episode, number of patients with history of previous episode of depression, number of patients with history of previous suicide attempts was more in group-2 compared to group-1 and the difference between the two groups was not statistically significant. The mean duration from the onset of first episode was more in group-1 compared to group- 2 and the difference between the two groups was statistically significant. Majority of group-2 patients had history of previous admission compared to group-1 and the difference between the two groups was statistically significant. There was no significant difference between the two groups with respect to presence or absence of family history of mental illness (Table-2).

Table – 2: Comparison of Clinical Variables in MDD with (Group - 1) and without Delusion (Group - 2)

Clinical Variables		Group- 1 (N=35)	Group- 2 (N=33)	Statistical Analysis
Age of Onset of Illness (In Years)		28.8 ± 9.88	26 ± 8.96	t=0.2, d.f.=66, Not significant
Duration of Index Episode. (In Weeks)		20.43 ±36.76	26.61±32.28	t=0.13, d.f=66, Not significant
Duration from the Onset of First Episode (In Years)		3.93 ± 5.93	2.21 ± 3.73	t=2, d.f = 66, p < 0.05 Significant
H/O Previous Episodes	**Present**	16 (45.71)	19 (57.58)	X^2= 0.97, d.f=1,Not significant
	Absent	19 (54.29)	14 (42.42)	
H/O Previous Admissions	**Present**	21 (60)	29(87.88)	X^2=6.78, d.f =1, P < 0.01, Significant
	Absent	14 (40)	4 (12.12)	
H/O Previous Suicide Attempts	**Present**	22 (60)	25 (75.76)	X^2= 0.98, d.f=1, Not significant
	Absent	13 (37.14)	8 (24.24)	
Family H/O Mental Illness	**Present**	11 (31.43)	12 (36.36)	X^2=0.0001, d.f=1,Not significant
	Absent	24 (68.57)	21 (63.64)	
Values in parenthesis are percentages				

Depressed mood was present in all cases of group-1 and group-2. Majority of Group-1 patients had feeling of guilt, suicidal ideas or attempts, early

insomnia, middle insomnia, decrease work and activities, retardation, agitation, psychic anxiety, somatic anxiety, gastro intestinal symptoms, general somatic symptoms, genital symptoms, hypochondriasis and loss of weight compared to group-2 and the difference between the two groups was not statistically significant. Group-1 patients had more loss of weight compared to group-2 and the differences between the two groups were not statistically significant. Group-2 patients had more insight compared to group-1 and the difference between the two groups was statistically significant (Table-3).

Table- 3: Comparison of Frequency of Symptoms in HAM-D Scale Between MDD with (Group - 1) and without Delusion (Group - 2)

HAM-D scale symptom	Group - 1 (N=35)	Group - 2 (N=33)	Statistical Analysis
Depressed mood	35(100)	33(100)	-
Feeling of guilt	21(60)	19(57.58)	X^2=3.31, d.f=1, Not significant
Suicidal ideas or attempts	30(85.71)	24(68.57)	X^2=1.75, d.f. =1, Not significant
Insomnia (early)	29(82.86)	25(75.76)	X^2=0.52, d.f=1, Not significant
Insomnia (middle)	26(74.29)	18 (54.55)	X^2=2.90, d.f=1, Not significant
Insomnia (late)	26(74.29)	14(42.42)	X^2=7.12, d.f=1, p<0.01. Significant,
Decrease work and activities	35(100)	32(96.97)	_
Retardation	23(65.71)	14(42.42)	X^2=3.71, d.f=1, Not significant
Agitation	15(42.86)	11(33.33)	X^2=0.65, d.f=1, Not significant
Anxiety psychic	34(97.14)	28(84.85)	-
Anxiety somatic	31(88.57)	28(84.85)	X^2=0.21, d.f=1, Not significant
Somatic symptoms gastrointestinal	25(71.42)	20(60.66)	X^2=0.89, d.f= 1, Not significant
Somatic symptoms general	31(88.57)	28(84.85)	X^2=0.2, d.f =1, Not significant
Genital symptoms	19(54.29)	11(33.33)	X^2=3.02, d.f.=1, Not significant
Hypochondriasis	18(51.43)	19(57.58)	X^2=0.26, d. f =1, Not significant
Loss of weight	19 (54.29)	15 (42.86)	X^2=0.53, d.f=1,

			Not significant
Insight	4 (11.42)	21 (60)	X^2=19.91, d.f=1, p <0.001, Significant
Values in parenthesis are percentages			

The Mean HAM- D score in group-1 was greater compared to group-2 and the difference between the two groups was statistically highly significant (Table-4).

Table – 4: Comparison of Mean HAM-D Scores of MDD with (Group - 1) and without Delusion (Group - 2)

	Group - 1 (N=35)	Group - 2 (N=33)	Statistical Analysis
HAM-D (Mean and S.D)	28.25 ± 5.1	21.84 ± 5.3	t = 5.087 d.f. = 66, P < 0.001 Significant

Melancholic features in majority of patients were absent. Patients who had melancholic features were more in group-1 than in group- 2. The difference was significant statistically between the two groups (Table-5).

Table – 5: Comparison of Melancholic Feature Sub Type In MDDwith (Group - 1) and Without Delusion (Group - 2)

Melancholic feature subtype	Group - 1 (N=35)	Group- 2 (N=33)	Statistical Analysis
Present	12 (34.29)	4 (12.12)	X^2= 4.63, d.f = 1, p < 0.05, Significant
Absent	23 (65.71)	29 (87.88)	
Values in parenthesis are percentages			

DISCUSSION

In the present study the mean age of the patients was found to be greater in group-1 as compared to group-2. This was statistically significant and in accordance with Birkenhageret al. [7] However Pande et al found that patients having delusional depression to be significantly younger. [8] No relation between age and presence or absence of delusions has been reported in other studies. [3,9-12] The two groups did not differ with regard to sex of patient. Same finding has been reported in several other studies.[3,8,10-11] Significant difference with regard to female sex between two groups was observed by

Ohayan M M and Schatzberg A Z. [13] Majority of the patients were from rural background. There is paucity of literature in this area. Majority of the patients were Hindus. Few earlier studies reported no relation between religion and presence or absence of delusions. [10,12] The difference between the two groups with respect to different levels of education was not statistically significant. No relation between education and presence or absence of delusions has been reported in earlier studies. [3,9,10,12,14] Majority of the patients were found to be married in group-1 than in group-2. This is in accordance with Rao and Begum [10] who reported significantly more married patients having delusional depression. However Ohayan M M and Schatzberg A Z found divorced or separated individuals more likely to have a Major depressive episode without delusion, than were married subjects. [13] No relation between marital status and presence or absence of delusions has been reported in studies. [9,12,14] Majority of patients were from nuclear family, unskilled workers and of low socio economic status There is paucity of literature in this area.

The mean age of onset of illness was more in group-1 compared to group- 2, but the difference between the two groups was not statistically significant. No relation has been reported between age of illness and presence and absence of delusions in previous studies. [8,11,12,14] Mean duration of illness of index episode was more in group-2 compared to group-1. The difference between the two groups was not statistically significant. Similar findings have been reported by Serretti et al and Birkenhageret al.[3,7] However Rao and Begumfound delusional depression patients to have significantly longer index episode than non delusional depression patients. [10] The mean duration from the onset of first episode was more in group-1 compared to group-2 and the difference between the two groups was statistically significant. There is paucity of literature in this area. Group-2 had more number of patients with history of previous episode of depression compared to group-1 and the difference was not statistically significant between the two groups. This is in accordance with Glassman &Rooseand Bellini et alwho reported delusional depression patients to have fewer previous episodes. [11,14] However Nelson and Bowers found delusional depression patients to have significantly more previous episodes.[15] No relation between history of previous episodes and

presence/absence of delusions were reported. [3,7,8,10] Majority of group-2 patients had history of previous admission compared to group-1. The difference between the two groups was statistically significant. However Guze et al reported delusional depression patients to have more hospitalization. [16] No relation between history of previous admission and presence or absence of delusions has been reported by Serretti et al. [3]Group-2 had more number of patients with history of previous suicide attempts than group 1 and the difference between the two groups was not statistically significant. No relation between history of previous suicide attempts and presence/absence of delusions has been reported. [3,9,14] Majority of group-1 patients did not have family history of mental illness compared to group-2 and the difference was not statistically significant. This is in accordance with Rao and Begum who found no relation between family history of mental illness and presence/absence of delusions. [10] However Coryell et al found relatives of delusional depression patients to have more likely to have schizophrenia and somewhat lower morbid risk for uni-polar depression. [9]

The mean HAM-D scores were significantly more in group-1 as compared to group-2. Majority of group-1 patients had HAM-D score of > 22 as compared to group-2. The difference between the two groups was highly significant statistically. Similar findings have been reported by earlier studies.[9,11,14,17-22]This difference could be due to the higher scorings on items related to delusions like guilt, hypochondriasis, paranoid symptoms and insight. However Lattauda et al did not concur with this finding. [23] In the present study there were significantly more number of patients reporting late insomnia and poor insight in group-1 as compared to group-2. Coryell et al reported that the two groups differed significantly on items measuring severity of depressed mood, guilt, retardation, hypochondriasis and insight. [9] In Bellini's study the two groups differed on items regarding depressed mood, work and activities, insight and paranoid thinking.[14]

Patients who had melancholic features were more in group-1 than in group-2. The difference was significant between the two groups. Similar findings have been reported by Coryell et al [9,24] and Parker et al. [22]

CONCLUSION

With regard to socio-demographic features there was no significant difference between patients of MDD with and without delusions. A patient of MDD with delusion appears to be a subgroup of MDD having severe depression. Findings of this study are consistent with most of the previous research carried out in this area. However MDD patients without delusions had more number of previous admissions. This finding needs further replication.

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LIST OF ABBREVIATIONS

MDD	Major Depressive Disorder
DSM-IV TR	Diagnostic and Statistical Manual of Mental Disorders, Text Revision of Fourth edition.
SADS	Schedule for Affective Disorder and Schizophrenia
DRS	Delusion Rating Scale
HAM-D	Hamilton Depression Rating Scale
N	Number of patients
>	Greater than
p	Probability
d.f	Statistical difference