



## ASSOCIATION OF SEVERITY OF DEPRESSION WITH THEIR DEMOGRAPHIC VARIABLE IN PATIENTS OF MAJOR DEPRESSIVE DISORDER

### Psychiatry

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### ABSTRACT

**Background:** Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration.

**Materials and Methods:** A total of 40 depressive patients were recruited from psychiatric opd S.S.G.Hospital Vadodara, and then association between severity of depression with demographic variables were measured. Unpaired t test, ANOVA test and tukey pair wise comparisons were used to check association in this study.

**Results:** This study found that severity of depression was not significantly associated with demographic variables in patient of Major Depressive Disorder.

**Conclusion:** The comparison of the mean Hamilton Depression Rating Scale (HAMD) score in relation to age, sex, area occupation, education and family type were carried out in which the p value obtained was statistically not significant ( $P > 0.05$ ), showing that the mean Hamilton Depression Rating Scale (HAMD) score is comparable between the various age groups.

### KEYWORDS

#### INTRODUCTION

Major depressive disorder (MDD), also known simply as depression, is a mental disorder characterized by at least two weeks of low mood that is present across most situations.<sup>[1]</sup> It is often accompanied by low self-esteem, loss of interest in normally enjoyable activities, low energy, and pain without a clear cause.<sup>[1]</sup> People may also occasionally have false beliefs or see or hear things that others cannot.<sup>[1]</sup> Some people have periods of depression separated by years in which they are normal, while others nearly always have symptoms present.<sup>[3]</sup> Major depressive disorder can negatively affect a person's personal life, work life, or education, as well as sleeping, eating habits, and general health.<sup>[1][3]</sup> Between 2–8% of adults with major depression die by suicide,<sup>[2][6]</sup> and about 50% of people who die by suicide had depression or another mood disorder.<sup>[7]</sup>

#### AIM:

To explore the association of severity of depression with demographic variables.

#### METHODOLOGY:

This was a cross sectional study conducted on 40 patients of Major Depressive Disorder who were currently on medication, attending Psychiatry OPD of SSG hospital, Vadodara. Severity of depression was measured using HAMD scale. Unpaired t test and Anova test was used to measure the strength of association between Severity of depression with demographic variables in patients with MDD with P value  $> 0.05$  taken as not significant.

#### RESULTS

The study population consisted of a total of 40 patients diagnosed as having Major Depressive Disorder. Patients were selected from outpatient department of psychiatry through serial sampling. (mean age of MDD patient's was 46.07 with a standard deviation of 10.6226) To find out the comparison among the pairs, post hoc Tukey test was applied.

**Table no.1 Comparison of mean HAMD in relation to age of patients**

Age	N	Mean $\pm$ SD	't' Value	P Value
19–29 years	2	2.00 $\pm$ 0.00	0.86	0.470, NS
30–44 years	16	2.19 $\pm$ 3.71		
45–59 years	15	3.00 $\pm$ 4.90		
> 60 years	7	5.29 $\pm$ 4.86		

One-Way ANOVA test applied. P value = 0.470, not significant

**Table no.2 Comparison of mean HAMD in relation to sex of patients**

Sex	N	Mean $\pm$ SD	't' Value	P Value
Male	24	2.92 $\pm$ 4.27	-0.19, DF =38	0.849, NS
Female	16	3.19 $\pm$ 4.56		

Unpaired 't' test applied. P value = 0.849, not significant

**Table no.3 Comparison of mean HAMD in relation to area of patients**

Area	N	Mean $\pm$ SD	't' Value	P Value
Rural	2	4.00 $\pm$ 5.66	0.32, DF =38	0.749, NS
Urban	38	2.97 $\pm$ 4.35		

Unpaired 't' test applied. P value = 0.749, not significant

**Table No.4 Comparison of mean HAMD in relation to education of patients**

Education	N	Mean $\pm$ SD	't' Value	P Value
Illiterate	2	5.00 $\pm$ 4.24	2.53	0.058, NS
Primary	17	3.18 $\pm$ 4.98		
Secondary	15	1.67 $\pm$ 2.80		
Graduate	4	2.50 $\pm$ 3.00		
Post Graduate	2	11.00 $\pm$ 4.24		

One-Way ANOVA test applied. P value = 0.058, not significant

**Table no.5 Comparison of mean HAMD in relation to occupation of patients**

Occupation	N	Mean $\pm$ SD	't' Value	P Value
Unemployed	24	3.63 $\pm$ 4.87	1.07, DF =38	0.290, NS
Farmer/Labourer/e employed	16	2.13 $\pm$ 3.32		

Unpaired 't' test applied. P value = 0.749, Not significant

**Table no.6 Comparison of mean HAMD in relation to marital status of patients**

Marital Status	N	Mean $\pm$ SD	't' Value	P Value
Single	1	2.00 $\pm$ *	3.90	0.010*
Married	35	2.45 $\pm$ 3.77		
Divorced	1	14.00 $\pm$ *		
Separated	1	0.00 $\pm$ *		
Widow/Widower	2	9.50 $\pm$ 4.95		

One-Way ANOVA test applied. P value = 0.010, Significant

**Table no.7 Tukey Pairwise Comparisons**

Pair	't' Value	P Value	Remarks
Married to Single	0.12	1.000	Non – Significant
Divorced to Single	2.23	0.193	Non – Significant
Separated to Single	-0.37	0.996	Non – Significant
Widow/Widower to Single	1.61	0.502	Non – Significant
Divorced to Married	2.99	0.038	Non – Significant
Separated to Married	-0.64	0.968	Non – Significant
Widow/Widower to Married	2.54	0.104	Non – Significant
Separated to Divorced	-2.60	0.092	Non – Significant
Widow/Widower to Divorced	-0.97	0.869	Significant
Widow/Widower to Separated	2.04	0.270	Non – Significant

\* Significant

**Table no.8 Comparison of mean HAMD in relation to family type**

Family Type	N	Mean ± SD	't' Value	P Value
Nuclear	18	2.72 ± 4.07	0.16	0.695, NS
Extended	22	3.27 ± 4.62		

Unpaired 't' test applied. P value = 0.695, not significant

The above table shows the pair wise comparisons.

The pair wise comparisons were done between the pairs Married to Single, Divorced to Single; Separated to Single; Widow/Widower to Single; Divorced to Married; Separated to Married; Widow/Widower to Married; Separated to Divorced; Widow/Widower to Divorced; Widow/Widower to Separated.

There was a statistically significant difference seen in the pair Widow/Widower to Married ( $P < 0.05$ ), showing a higher depression in the Widow/Widower in comparison to the Married.

There was no statistically significant difference seen in any of the remaining pairs ( $P > 0.05$ ), showing that the mean HAMD was comparable between each of the pairs.

## DISCUSSION

The present study included 40 patients. The mean Age of the patients was about 46.07 with a standard deviation of 10.62.

Number of Male patients (60%) was higher than Female patients (40%). This study include (95%) patient from urban area and (5%) from rural area. Majority of patients were Hindu (95%) and (87%) were married. Majority of patients belonged to Extended (55%) families.

Noori Akhtar-Danesh et al did similar study and he found that odds ratio of depression for men compared with women are about 0.60. The lowest and highest rates of depression are seen among people living with their married partners and divorced individuals, respectively. Prevalence of depression among people who live with common-law partners is similar to rates of depression among separated and divorced individuals. The lowest and highest rates of depression based on the level of education is seen among individuals with less than secondary school and those with "other post-secondary" education, respectively. Prevalence of 12-month and lifetime depression among individuals who were born in Canada is higher compared to Canadian residents who immigrated to Canada irrespective of gender. There is an inverse relation between income and the prevalence of depression ( $p < 0.0001$ ).<sup>5</sup>

The comparison of the mean HAMD score in relation to age, sex ,area occupation ,education and family type were carried out in this study in which The p value obtained was statistically not significant ( $P > 0.05$ ). This study indicated that expressed emotion was not varying with above demographic variables. The comparison of the mean HAMD in relation to marital status was done using One-Way ANOVA. The P value obtained was statistically significant ( $P < 0.05$ ), showing that the mean LEE varies between the various age groups. There was a statistically significant difference seen in the pair Widow/Widower to Married ( $P < 0.05$ ), showing a higher HAMD score in the Widow/Widower in comparison to the Married.

## LIMITATIONS

1. Sample size is small in this study.
2. It is cross sectional study

## CONCLUSION

The comparison of the mean HAMD score in relation to age, sex ,area occupation ,education and family type were carried out in which The p value obtained was statistically not significant ( $P > 0.05$ ). This study indicated that expressed emotion was not varying with above demographic variable. This study showing a higher HAMD scores in the Widow/Widower in comparison to the Married. This study found that severity of depression was more in widow/widower in comparison to married patients.

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