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Original Research Article

ALEXITHYMIA AND SOMATIZATION IN PATIENTS WITH DEPRESSION AND THEIR IMPACT ON SOCIAL FUNCTIONING

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ABSTRACT

Background: Depression is a chronic mental illness that causes alteration in mood, behavior, thoughts and physical health. It's a common disorder that may even affect person's individual ability to enjoy life and by causing a decline in capacity to undertake even the simplest daily tasks. In this study we have tried to assess how alexithymia and somatization contribute to social functioning impairment in depression disorder. **Materials and Methods:** This hospital based cross sectional study involved 100 patients was done in Department of Psychiatry, Government Tirupur Medical college and Hospital, Tamilnadu, India. Patients were selected based on individual's depression severity score based on HAMD scale, and then scales for Alexithymia and somatization, were given to those individuals and categorized. Based on the interpretation of above scales, various domains pertaining to Alexithymia and somatization were entered in Excel and analyzed using SPSS 21 and results were interpreted by using chi-square test- for proportions. **Result:** In our study we evaluated the social and occupational functioning using SOFAS among the participants and association of Alexithymia and somatization were individually interpreted and the results obtained is, More the severity level of impairment in SOFAS higher the alexithymia scores. Serious impairment-73.8%; moderate -55.1%; mild -11.1% which is statistically significant p 0.05. Similarly, while assessing the social and occupational functioning using SOFAS with somatization 57.1 % of high somatization score found to have moderate level of social and occupational impairment, serious impairment-35.7%. which is statistically significant p <0.05. **Conclusion:** This study concludes that alexithymia and somatization are equally associated with depression.

INTRODUCTION

Depression is a chronic mental illness that causes alteration in mood, behavior, thoughts and physical health. It's a common disorder that may even affect person's individual ability to enjoy life and by causing a decline in capacity to undertake even the simplest daily tasks. Depression is one of the leading causes of disability- adjusted life year (DALY) and According to WHO (World Health Organization) approximately 350 people worldwide are said to be suffer from this disorder. Even after remission of depression there is impairment in social functioning.[1] As mentioned in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM- V) the main feature of major depressive disorder (MDD) is the development of depressed mood (dysphoria) and loss of interest in activities that were most pleasurable in the past (anhedonia) which present for the duration of two weeks. These symptoms must also be presented by at least four of the following features such as changes in the appetite or weight, changes in the sleep patterns, altered psychomotor activity, feelings of worthlessness or guilt, difficulty in concentration or making decisions and thoughts of death or suicidal ideation.

Even though there are many drugs developed for the treatment of depression, patients even after taking antidepressants fail to attain full remission of disease. Some patients also develop treatment resistant depression in which the patients fail to respond to the available drugs or other therapeutic approaches. Social and occupational functioning impairment is present in most of the cases diagnosed with depression. Apart from above things there are

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certain conditions were much importance is not provided in our set up such as alexithymia and somatization. It has been proved in many studies supporting that alexithymia and somatization occurs in depressed individuals.[2]

Alexithymia is defined as a "personality construct characterized by the sub-clinical inability to identify and describe emotions in the self". The core characteristics of alexithymia is marked dysfunction in emotional awareness, social attachment, and interpersonal relating. Individuals suffering from alexithymia also have difficulty in distinguishing and appreciating the emotions of others, which is thought to lead to un-empathic and ineffective emotional responding.[3,4]

Alexithymia is prevalent in approximately 10% of the general population and is known to be comorbid with a number of psychiatric conditions like depression, anxiety, personality disorder, substance use disorder, schizophrenia, panic disorder, eating disorder, etc. and medical conditions like systemic hypertension. Cardiovascular disease, inflammatory bowel disease, fibromyalgia etc.[5,6]

Soma' means body. Somatic symptoms are the symptoms experienced in the body like physical sensations, experiences or movements. Few examples include dizziness, pain, nausea and fainting. Various problems can be felt as somatic symptoms but not all symptoms gain attention in daily routine activities or causing distress or impairment to the individuals. Somatization is a normal human experience, but sometimes these body symptoms cause problems in everyday life.[7,8]

Alexithymia and somatization is seen in patients with depression. Even after remission of depression there is impact in the impairment of social functioning to certain extent. Studies regarding alexithymia have been done since many years but Indian studies on alexithymia are very few. This study focus on alexithymia and somatization in patients presenting with depressive illness and how it is impacted on their social functioning.

Aims and Objectives

1. To investigate the level of social functioning, alexithymia and somatization in patients with depression
2. To determine the impact of alexithymia and somatization on social functioning in depression individuals.
3. To compare the various domains associated with alexithymia and somatization in depression individuals.

MATERIALS AND METHODS

This study was conducted in 100 patients with depression disorder attending Department of Psychiatry, Government Tirupur Medical college and hospital for a period of 6 months April 2025 to October 2025. The necessary prior permission for conduct of the study was obtained from Institutional Ethics Committee.

For this cross sectional study Patients consulted in Psychiatry those who are fulfilling the criteria for depression according to the ICD-10 were chosen up for the study. Written informed consent and detailed explanation in individual's mother tongue has been given before enrolling them in the study.

After this the individual's depression severity were assessed using the HAMD scale,[9] level of social and occupational functioning among individuals were assessed using SOFAS (social and occupational functioning assessment scale),[10] and then scales for Alexithymia and somatization like TAS-20(TORONTO ALEXITHYMIC SCALE),[11] [PHQ-15-SOMATIC SYMPTOM SEVERITY SCALE,[12] were given to those individuals and categorized as two group Alexithymia and somatization groups based on the interpretation of above scales, after this various domains pertaining to Alexithymia and somatization were compared using statistically appropriate measures like chi-square test- for proportions, ANOVA- for variance, student t test for continuous variables were used and data are analyzed and results.

RESULTS

Study population consists of 100 participants which includes 58 females and 42 male participants. Among participant age group, majority 37% belongs to age between 30-39 years, 29% belongs to 40-49 years. In our study majority (66%) of the participants were from the urban location. Regarding socio economic status according to modified kuppusamy scale, 68% belongs to upper lower class in this study. 14% belongs to lower class. 57 participants in the study were married, 36 were single and 7 participants were divorced.

1.General Parameters in Alexithymia

Among 100 participants 59 individuals scored positively for alexithymia based on TAS-20 scales. Out of which 33 were males and 26 were females with mean age group of 35.36 years. 29 participants were married, 24 were single and 6 participants were divorced individuals.68% belongs to upper lower class economic status.32 individuals were from nuclear family and 27 individuals from joint family.

2. Illness Parameters in Alexithymia

a. Number of episodes of depression- Among 59 individuals of depression with alexithymia in this study, 22 participants (37.3%) had first episode depression, 21 participants (35.6%) had second episode depression. Only 16 participants (27.1%) had 3 and more number of depressive episodes.
b. Hospitalization- Among 59 individuals of depression with alexithymia in this study, 33 participants (55.9%) required hospitalization i.e.

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admitted in inpatient care and 26 individuals (44.1%) did not require hospitalization.

c. Family h/o psychiatric illness- 45 Participants (76.2%)had family history of psychiatric illness and 14 individuals do not have family history of psychiatric illness
d. Medical comorbidity- 42 individuals had medical comorbid illness and 17 participants didn't have any medical comorbidity
e. Suicidal attempts- 33 participants (56%) in our study had one or more suicide attempts.
f. Duration of occupational impairment- majority of individuals (97%) had occupational impairment in our study. Out of which, 35 participants (59.3%)had occupational impairment for duration about 4-6 months and 19 participants (32.2%)had more than 6 months of occupational impairment. Only 2 participants had no impairment.
g. Depression severity- On evaluating the depression severity with HAM-D rating scale it was found that very severe depression was found in 4 individuals, severe depression was found in 26 participants, 18 participants had moderate amount of depression, 11individuals had mild amount of depression severity.
h. Sofas score- On assessing the social and occupational impairment using SOFAS scale, it was found that 31 participants (52.5%)had serious level of impairment and 22 participants (37.2%) had moderate level of impairment and 8 individuals had mild level of social had occupational impairment.

1.General Parameters In Somatization

Among 100 participants 43 individuals scored high somatization score on (PHQ-15 somatic symptom severity scale), among which 16 were males and 27 were females with mean age group of 47.16 years. 33 participants were married. Majority 69.7% individuals belong to upper lower class economic status. 30 individuals were from nuclear family and 13 individuals from joint family.

2.Illness Parameters In Somatization

a. Number of episodes of depression- Among 43 individuals of depression with high level of somatic symptoms in this study, 23 participants (53%) had 3 and more number of depressive episodes and 16 participants (37%) had second episode depression
b. Hospitalization- Among 43 individuals of depression with high level of somatic symptoms in this study, 35 participants (81.3%) required hospitalization i.e. admitted in inpatient care.
c. Family h/o psychiatric illness- 37 Participants (86.1%)had family history of psychiatric illness.
d. Medical comorbidity- 36 individuals had medical comorbidity.
e. Suicidal attempts- 22 participants (51%) had past history of suicide attempts.
f. Duration of occupational impairment- All participants had occupational impairment. 34 participants (791%)had occupational impairment for duration about 4-6 months, 9 participants had more than 6 months of occupational impairment.
g. Depression severity- On evaluating the depression severity with HAM-D rating scale it is found that severe depression is found in 10 participants, 25participants had moderate level of depression, 8 individuals had mild amount of depression severity.
h. Sofas score- On assessing the social and occupational impairment using SOFAS scale, it is found that 15 participants had serious level of impairment and 28 participants (65.1%) had moderate level of social had occupational impairment.

On assessing the proportions of depression severity using HAM-D, More the severity of depression higher the alexithymia scores which is statistically significant $p < 0.05$ [Table 4].

On assessing the proportions of social and occupational functioning using SOFAS, More the severity level of impairment higher the alexithymia scores serious -73.8%; moderate -55.1%; mild -11.1% which is statistically significant $p < 0.05$ [Table 5].

On assessing the proportions of depression severity using HAM-D, individuals with moderate level of depression had higher somatization score 64.1% which is statistically significant p 0.012. [Table 6]

On assessing the proportions of social and occupational functioning using SOFAS with somatization 57.1 % of individuals with high somatization score found to have moderate level of social and occupational impairment, serious impairment-35.7%. which is statistically significant $p < 0.05$ [Table 7].

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Table 1: sociodemographic details

Study population	Total	Number (N)	Percentage (%)
Gender	Males Females	42 58	42 58
Age	18-29 years 30-39 years 40-49 years 50-59 years-	14 37 29 20	14 37 29 20
Residents	Urban Rural	66 44	66 44
Socio economic status	Lower Upper lower Lower middle Upper middle	14 68 13 05	14 68 13 05
Marital status	Married Unmarried Divorce	57 36 07	57 36 07

Table 2: Details of patients with Alexithymia N= (59)

S.N0	Parameters	Variables	Number (N)	Percentage (%)
1	Total number of depression individuals with alexithymia	Males Females	33 26	33 26
2	Mean age	In years	35 ±3.6	35
3	Marital status	Married Unmarried Divorce	29 24 06	29 24 06
4	Socio economic status	Lower Upper lower Lower middle Upper middle	06 40 08 05	06 40 08 05
5	Family type	Nuclear Joint	32 27	32 27
6	No of episodes of depression	1stepisode 2nd episode 3 and more	22 21 16	22 21 16
7	Hospitalization	Non hospitalized Hospitalized	26 33	26 33
8	Family h/o psychiatric illness	No Yes	14 45	14 45
9	Medical comorbidity	No Yes	17 42	17 42
10	Suicidal attempts	Nil 1-2 times 2 times	26 27 06	26 27 06
11	Duration of occupational impairment	Nil- 1-3 months months >6 months	02 03 35 19	02 03 35 19
12	Depression severity	Mild Moderate Sever Very severe	11 18 26 04	11 18 26 04
13	Sofas score	Serious impairment Moderate impairment Mild impairment	31 27 01	31 27 01

Table 3: Details of Patients with Somatization (N=43)

S.NO	Parameter	Variables	Number (N)	Percentage (%)
1	Total number of depression individuals with high somatization	Males Females	16 27	16 27
2	Mean age	In years	47 ±1.6	
2	Marital status	Married Unmarried Divorce	33 08 02	33 08 02
3	Socio economic status	Lower Upper lower Lower middle Upper middle	08 30 04 01	08 30 04 01
4	Family type	Nuclear Joint	30 13	30 13
5	No of episodes of depression	1st episode 2nd episode 3 and more	04 16 23	04 16 23

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6	Hospitalization	Non hospitalized Hospitalized	08 35	08 35
7	Family h/o psychiatric illness	No Yes	06 37	06 37
8	Medical comorbidity	No Yes	07 36	07 36
9	Suicidal attempts	Nil 1-2 times 2 times	21 20 02	21 20 02
10	Duration of occupational impairment	Nil 1-3 months 4-6 months >6 months	00 00 34 09	00 00 34 09
11	Depression severity	Mild Moderate Severe Very severe	08 25 10 05	08 25 10 05
12	Sofas score	Serious impairment Moderate impairment Mild impairment	15 28 00	15 28 00

Table 4: Comparing Proportions Of Depression Severity Using Ham-D In Patients With Alexithymia

Depression severity HAM-D	Non-Alexithymia		Alexithymia		Total		P value
	N	%	N	%	N	%	
Mild	13	54.2	11	45.8	24	100.0	<0.05*
Moderate	21	53.8	18	46.2	39	100.0	
Severe	6	18.8	26	81.3	32	100.0	
Very severe	1	20.0	4	80.0	5	100.0	
Total	41	41.0	59	59.0	100	100.0	

*p value <0.05 significant using Chi-Square Test/ Fisher's Exact Test

Table 5: comparing proportions of social and occupational functioning using sofas

SOFAS impairment	Alexithymia						P VALUE
	Non-Alexithymia		Alexithymia		Total		
	N	%	N	%	N	%	
Serious	11	26.2	31	73.8	42	100.0	<0.05*
Moderate	22	44.9	27	55.1	49	100.0	
Mild	8	88.9	1	11.1	9	100.0	
Total	41	41.0	59	59.0	100	100.0	

*p value <0.05 significant using Chi-Square Test/ Fisher's Exact Test

Table 6: Comparing Proportions Of Depression Severity With Using Ham-D

Depression severity	Somatization level								P Value
	Low		Medium		High		Total		
	N	%	N	%	N	%	N	%	
Mild	11	45.8	5	20.8	8	33.3	24	100.0	
Moderate	12	30.8	2	5.1	25	64.1	39	100.0	
Severe	16	50.0	6	18.8	10	31.3	32	100.0	
Very severe	4	80.0	1	20.0	0	.0	5	100.0	
Total	43	43.0	14	14.0	43	43.0	100	100.0	

*p value <0.05 significant using Chi-Square Test/ Fisher's Exact Test

Table 7: comparing proportions of social and occupational functioning using sofas

SOFAS impairment	Somatization level								P VALUE
	Low		Medium		High		Total		
	N	%	N	%	N	%	N	%	
Serious	20	47.6	7	16.7	15	35.7	42	100.0	
Moderate	17	34.7	4	8.2	28	57.1	49	100.0	<0.05*
Mild	6	66.7	3	33.3	0	.0	9	100.0	
Total	43	43.0	14	14.0	43	43.0	100	100.0	

*p value <0.05 significant using Chi-Square Test/ Fisher's Exact Test

DISCUSSION

Alexithymia and somatization is most commonly associated with depression. Even after remission of depression there is certain extent of impairment in the social and occupational functioning in which various factors plays a role. In this study we evaluated 100 participants of depressive illness and tried to estimate the prevalence of alexithymia and somatization in depression individuals using validated tools and tried to explore the impact of alexithymia and somatization in those individuals with depressive disorder pertaining to the social and occupational functioning. And also to compare the

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various domains related with alexithymia and somatization among depressive individuals. In our study out of 100 individuals 58 females and 42 males are enrolled based on inclusion and exclusion criteria.

Socio demographic characterstics and illness paameters in depression related with-alexithymia: 0 Mean age of alexithymia is found in the mean age of 35.36 years. In earlier studies done by Taycan Oet al found that alexithymia is found in the mean age of 32.41±10.02 among depressed individuals.[13]

On investigating the gender proportion our study shows that male gender (78%) scored more on the TAS-20, when compared with female (44.8%)and it is statistically significant p0.001. which is similar to the earlier study on by Salminen, et al. and Honkalampi.K.et al who had showed that prevalence of alexithymia is more among men on comparing with females.[14,15]

On evaluating the marital status, a study done by Honkalampi K, Hintikka J et al found that alexithymia is more common among divorced and unmarried individuals which is also replicated in our study. High TAS-20 scores were seen more among unmarried individuals 66.5% and divorced individuals 85.7% but the result obtained is not statistically significant in our study [15]

With respect to economic status earlier studies done by Kokkonen P et al. found that The analyzed indicators of socio-economic status (education, income, employment) showed decreasing TAS-20 sum scores with ascending social status.[16] But our study arrived the result of increasing TAS-20 scores as the economic status increases which is due to the reason that in our study majority of the individuals enrolled were belong to the upper lower and lower class status.

On evaluating the type of family earlier studies demonstrated that type of parenting and family discord has been related as a possible predictor for the development of Alexithymia,[17,18] in our study we tried to evaluate the type of family set up as a part of socio demographic evaluation and the result which is obtained is alexithymia is seen more in the joint family (71.1%) compared with nuclear family (51.6%) and the result is statistically significant.

On assessing the number of episodes of depressive illness it is found that first episode of illness contributes 88% of Alexithymia individuals second episode 61.8%, 3rd and more episode constitutes 39.0 % Statistically significant $p < 0.001$.

Study done by Rybakowski et al. found that family history of psychiatric illness like substance use disorders, mood disorders are common in alexithymia. In our study on assessing the proportion of family history it is found that 60.9% of individuals with high TAS scores is having no family h/o of psychiatric illness whereas and 58.4% of individuals had family h/o of psychiatric illness and the result obtained is not statistically significant.[19,20]

Medical comorbidity in alexithymia has been investigated in earlier studies and found that diseases pertaining cardiovascular system, gastro intestinal system, central nervous system diseases are more common system involved as a comorbidity.[21,22] In our study On assessing the proportions of medical comorbidity in the study it is found that 70.8% of individuals with no medical comorbidity were having high TAS scores whereas 55.3 % of individuals have medical comorbidity which is Statistically non -significant p 0.176.

Taiminen TJ et al in his study found that the measurement of alexithymia does not yield extra information regarding suicide risk.[23] In our study the proportions of suicidal attempts with alexithymia it is found that individuals who attempted more than two times have higher TAS-20 scores 66.7% whereas it is 54.2 % among individuals with no suicidal attempt but it is statistically non-significant p 0.68

On assessing the proportions of depression severity using HAM-D, More the severity of depression higher the alexithymia scores which is statistically significant p 0.005 which is replication of earlier study done by Günther,V. et al.[24]

Socio Demographic Characterstics and Illness Parameters in Depression Related With-Somatization

Mean age of somatization is found in the mean age of 47.16 years which is in accordance with previous study.[25]

Study done by Kroenke K et al found that in depression somatization is most prevalence in female gender. In our study, even though it is statistically not significant P 0.390 high level of somatization is found in female gender i.e. 46.6% whereas males contribute 39.0%.

On comparing marital status High level of somatization is seen in individuals who are married 57% which is statistically significant $p< 0.002$ which is accordance with earlier studies done by Katon W, Kirmayer L.J et al.[26,27]

On comparing the socio economic status according to modified Kuppusamy scale somatization is more common in lower class of socio economic status i.e. 57.1% whereas upper middle class family contributes 20%. Prevalence of somatization decreases as socio economic status increases. But Statistically the arrived result is non- significant p 0.335.which is in accordance with previous study done by kirmayer L et al.[27]

On evaluating the type of family, somatization a is found more in nuclear family which contributes 48.4% whereas it is 34.2% in joint family But the result obtained is statistically not significant. On describing the number of episodes of depressive illness it is found that higher number of episode in individuals contributes 56.1% of somatization whereas first episode contributes 16.0%in our study. Hence higher level of somatization is seen more in subsequent episodes Statistically significant p <

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0.001 which is supported by previous study which reflects the same results. Katon W, Lin E et al.[26]

On assessing the proportion of hospitalization high level of somatic score is in hospitalized individuals 52.2% whereas non hospitalized individual contributes 24.2 %. Which is statistically significant p 0.02 which is due to the possible medical comorbidity which requires therapeutic intervention as evidenced by previous studies done by Chandler JD et al.[28]

On evaluating the proportions of medical comorbidity in our study it is found that 47.4% of individuals with medical comorbidity were having higher level of somatization whereas 40.8% have medical comorbidity with lower level of somatization. But the result is Statistically non - significant p 0.176. Medical comorbidity is seen more in individuals with high level of somatic score. Earlier studies established a significant results with medical comorbidity.[29,30]

On assessing the proportions of suicidal attempts with somatization it is found that individuals of about 46.5% who attempted (1-2) times have higher level of somatization score which is statistically significant p 0.052.

On evaluating the proportions of depression severity using HAM-D, individuals with moderate level of depression had higher somatization score 64.1% which is statistically significant p 0.012. In our study we evaluated the social and occupational functioning using SOFAS among the participants and association of Alexithymia and somatization were individually interpreted and the results obtained is More the severity level of impairment in SOFAS higher the alexithymia scores. serious impairment-73.8%; moderate -55.1%; mild -11.1% which is statistically significant p 0.001.

Similarly, while assessing the social and occupational functioning using SOFAS with somatization 57.1 % of high somatization score found to have moderate level of social and occupational impairment, serious impairment-35.7%. As we tried to investigate the alexithymia and somatization and their impacts on social functioning in depression individuals, both individuals with high TAS-20 scores and also individuals with high somatization scores had higher level of impairment n the social and occupational functioning when evaluated using the SOFAS. many domains replicated same results as of the earlier studies and were also statistically significant.

CONCLUSION

This study provides many information which is significant in depression individuals. Since long time alexithymia has been neglected in many countries due to the limited availability of evidence based concepts and also difficulty in identifying this as a separate entity due to lack of tools for evaluating. This study focus on association of hidden concept alexithymia in depression and tried to explore the various domains pertaining to it similarly along with the somatization evaluation makes a comparable approach for the improvement of social and occupational functioning impairment resulting from the depression. This study concludes that alexithymia and somatization are equally associated with depression in which alexithymia is seen more in male gender, married individual, joint family, higher severity of depression, higher number of episodes, non-hospitalized individuals and severe level of social and occupational functioning impairment. Whereas somatization seen more in female gender, married individuals, severe level of depression, frequently hospitalized individuals, higher number of episodes, severe level of social and occupational impairment. This study provides the importance that while treating the individual with depression it is necessary to assess the somatic symptoms and alexithymia scores using appropriate scales as used in this study and monitor the progression during follow up along with treatment protocol can improve the outcome of the disease and also prevent the social functioning impairment thereby improving the quality of life.

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