VOLUME-9, ISSUE-5, MAY -2020 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Psychiatry

TO STUDY CAREGIVER BURDEN AND ITS CO-RELATION WITH ADHERENCE TO TREATMENT, COMPARISON IN UNIPOLAR AND BIPOLAR DEPRESSION.

Paramjeet Singh Senior Professor, , Department of Psychiatry, SMS Medical College, Jaipur.

Priyank Jain* Junior resident, Department of Psychiatry, SMS Medical College, Jaipur. *Corresponding Author

ABSTRACT

Background: Unipolar depressive disorder and bipolar depressive disorder together caused more lost quality of life, lost productivity, and chronic impairment than ischaemic heart disease and cerebrovascular disease. Relationship of caregiver with the patient and characteristics of the caregiver may also be the important determinants.

Methodology: We took consecutive patient (N=23) for study after applying inclusion and exclusion criteria for unipolar depression, and same number of patients (N=23) for bipolar depression. Socio-demographic profile of all patients recorded and Zarit Caregiver Burden Interview (ZBI) questionnaire and Drug Attitude Inventory (DAI) applied to both groups.

Results: In unipolar depression mean± SD of ZBI was 40.69 ± 9.01 and mean of DAI± SD was -.21±4.61, pearson correlation coefficient was -.788 (p value >.01). In the other group diagnosed with bipolar depression (N=23) mean ± SD of ZBI was 56.35 ± 8.79, mean+/-SD of DAI was -.91 ± -3.05, pearson correlation coefficient was -.899(p value ->.01).

Conclusion : We could conclude that there is a strong association between caregiver burden and compliance to the treatment in unipolar depression and bipolar depression.

KEYWORDS :

INTRODUCTION :

The World Health Organization (WHO) has categorized depression as among the most disabling clinical diagnosis in the world, estimated to affect nearly 340 million people worldwide and nearly 10 million people in India [1]. These statistics highlights the widespread prevalence of depression as a common clinical condition but largely fail to emphasize the devastating consequences of this illness. The World Federation of Mental Health has issued a report [2] supporting that caring for the person who have depression needs tireless effort, energy, and empathy and indisputably greatly impacts the daily lives of caregivers. Family plays a key role in the care of person with mental illnesses. This is especially very true in India because of various factors like the tradition of interdependence, the concern for the family, and the deficiency of mental health professionals.[3] Caregivers often report feeling of stress by various aspects of caring for the patient; this is termed 'caregiver burden'. In India, mostly family members cares the patients and institutional care is considered the last resort, caregivers themselves have a high risk of emotional stress and depression.[4] Mostly, burden of care is more defined by its impacts and consequences on caregivers. Other than the emotional, psychological, physical and economic impact, the concept of 'burden of care' involves distressing notions such as shame, feelings of guilt, embarrassment, and self-blame.[5] Unipolar depressive disorder and bipolar depressive disorder together caused more lost quality of life, lost productivity, and chronic impairment than ischaemic heart disease and cerebrovascular disease. Relationship of caregiver with the patient and characteristic of the caregiver may also be important determinants. For example burden may increase if caregiver is older, parent or spend more numbers of hours caring for the patient [6]. Good social support and adequate coping, in contrast, may be protective [7] (e.g., problem-solving is more effective than avoidance or other emotional coping strategies).

This study examines whether family burden/ caregiving have a relation to non-adherence of medications in unipolar and bipolar depression. Adherence is "the extent to which a patient's behaviour coincides with medical or prescribed health advice" [8]. Health professionals need to understand the dynamics of adherence to remove obstacle in treatment effectiveness and patient's quality of life [9]. Models concerned with medication adherence take the issue that are based on cognitive factors which influences the duration of the treatment regime, the patient himself/herself, and the interactions between the patient and the therapist.[9, 10]. Dealing with these factor increases medication adherence according to some studies.[9,11,12].

Aim:- To study caregiver burden and its co-relation with adherence to treatment in unipolar and bipolar depression and its comparison in both group.

Objective: -

1) To study the caregiver burden and adherance in patients of unipolar and bipolar depression.
2) To corelate and quantify the effect of care giver burden and adherence to treatment in patient with unipolar and bipolar depression.

Material and method:

Study design:

This is the descriptive cross sectional study, conducted at OPD a tertiary care centre in Rajasthan. We collected sample for the period of 1st jan 2019 to 31st jun 2019. We took consecutive patient(N=23) for study after applying inclusion and exclusion criteria for unipolar depression, and same number of patients (N=23) for bipolar depression. We took consent from both patient and caregiver and permission from ethical committee.

Inclusion criteria:

1. Diagnosis of unipolar depression/ bipolar depression without psychotic symptoms [13] and confirmed by 2 senior psychiatrists of the centre.
2. Patients /caregivers of both gender.

Exclusion criteria:

1. Patients with other psychiatric diagnosis.
2. Patients with psychosis.
3. Patient suffering or on treatment for any chronic medical /surgical illness.
4. Patients/caregivers not willing to give written consent

Instruments used

1. Zarit Caregiver Burden Interview (ZBI) questionnaire [14] : The ZBI is the most widely used tool in researching caregiver burden. This is a 22-item questionnaire which have five possible responses to each question, with a possible score of 0–4. It was administered as a self-reporting questionnaire.
2. Drug Attitude Inventory; DAI[15]: The DAI-30 contains 15 items that a patient who is fully adherent to their prescribed medication (and so would be expected to have a 'positive' subjective response to medication) would answer as 'True' (plus one), and 15 items such a patient would answer as 'False' (minus one). The total score for each patient is calculated as the sum of the positive scores, minus the negative scores. A positive total score indicates a positive subjective response (adherent) and a negative total score indicates a negative subjective response (non-adherent).

Statistical analysis:

We applied DAI and ZBI scale to patient and caregiver, after collecting socio-demographic characteristics and did statistical analysis using the Statistical Package for Social Scientists, (SPSS-23.0). Discrete variables were computed as frequency and percentage. Mean and standard deviation was calculated for all the continuous variables. Karl Pearson's correlation was used for computing correlations of parametric variables. Significance was compared using two tailed values. The significance level was set at <0.01.

Observation and Results:

In this study, we evaluated (N=23) patients diagnosed with unipolar and bipolar depression in each category. We applied Zarit burden interview and drug adherence inventory to evaluate caregiver burden and adherence to treatment respectively.

Table no 1 : sociodemographic profile of caregiver

	Bipolar depression	Unipolar depression	P value*
Age ± SD	32.73± 7.15	33.47± 7.28	0.37 NS†
Gender Male(%) Female(%)	 17(73.9) 6(26.2)	 15(65.2) 8(34.8)	.51 NS
Locality Urban Rural	 13(56.5) 10(43.5)	 11(47.8) 12(52.1)	0.38 NS
Marital status Married Unmarried	 16(69.5) 7(30.5)	 20(86.9) 3(13.1)	0.14 NS

*chi-square test; † Independent sample t-test; NS- Non significant

Table shows that on comparing socio-demographic profile of both group, no significant deference was found between these group and both the groups are comparable in terms of age, gender, locality and marital status.

Table no 2 ; unipolar depression

Mean of ZBI (caregiver burden) ± SD	40.69 ± 9.01
Mean of DAI (adherence) ± SD	-.21 ± 4.61
Pearson Correlation coefficient	-.788**
P value	.001 SIG

SIG- Significant

In unipolar depression mean± SD of ZBI was 40.69 ± 9.01 and mean of DAI± SD was -.21±4.61, pearson correlation coefficient was -.788 (p value <.05).

Table no 3; Bipolar depression

Mean of ZBI (caregiver burden) ± SD	56.35± 8.97
Mean of DAI (adherence) ± SD	-.91± 3.05
Pearson Correlation coefficient	-.899
P value	.001 SIG

SIG- Significant

In the other group diagnosed with bipolar depression (N=23) mean ± SD of ZBI was 56.35 ± 8.79, mean+/-SD of DAI was -.91 ± -3.05, pearson correlation coefficient was -.899(p value -<.05).

Table no; 4

	"Mean ± SD" in BD	"Mean ± SD" in UPD	Std. error	DF	Significance (p value)
ZBI	56.35± 8.97	40.69 ± 9.01	2.65	44	0.001 **SIG**
DAI	-.91± 3.05	-.21 ± 4.61	1.15	44	0.54 NS

SIG- Significant, NS- Non significant

Mean ZBI of BD was 56.35 and mean ZBI of UPD was 40.69, indicates that the caregiver burden was more in bipolar depression. On applying statistical analysis these differences are significant, (p value < .05).

DISCUSSION :

This study emphasised the importance of caregiver burden, treatment of bipolar depression and unipolar depression. This study, also found the direct and significant correlation between caregiver burden (using DAI scale) and adherence to treatment (using BZI scale). Relationship of caregiver with family,friends, family and other people were often negatively affected, resulted in strained relationship with friends, family and neighbors. Many caregivers had a salary reduction since the onset of the illness.[27]

In our study 73% for BD and 65% for UPD care givers are male, which is similar with previous study in which caregiver for bipolar disorder was in range of 60-80%, and for unipolar depression was 55-78%. [17,18,20]

Mean ZBI of BD was 56.35 and mean ZBI of UPD was 40.69, indicates that the caregiver burden was more in bipolar depression which is similar to few other studies. [21,23] On applying statistical analysis these diffrences were significant, (p value < .05) which was also in line with the previous study.[22]

On the other hand a study done in brazil found that mean burden was only slight higher, (but not significant) among the caregivers of young adults with bipolar disorder than depressive disorder, this study was a population based study, so sample collected from a specific area. That is the possible reason for difference in result from our study.[18]

Possible reasons for more burden in bipolar are [23-26]:-

1. Cultural and social attitude towards the illness.
2. Due to cyclic nature of illness.
3. Low social support, disruption of routine, financial strain.
4. Frequent marital problem, distress leads to abuse of alcohol/illicit drug.

In our study on comparing mean DAI of both group, Adherence to drug was more in unipolar depression compared to bipolar depression although that is not significant(p-value=.20), which is similar result found by a previous study.[28]

There is no known study in India which compare adherence to medication and caregiver burden in depression, so we tried to fill this gap by our study. In unipolar depression we found a significant and strong negative correlation (p-value <.05 and correlation coefficient-.788) between caregiver burden and

adherence to drug. likewise in bipolar depression significant and strong correlation (p-value <.05 and correlation coefficient-.899) present between caregiver burden and adherence to drug. It means on improving adherence we can reduce caregiver burden.

This is important in that the results of a study [19] suggested that caregivers may represent a group towards which may require extra attention within interventions to enhance adherence, and we also agreed that this might be further confounded for those individuals who either perform caregiving duties or perceive family burden and also have a mental health difficulty themselves for which they are taking supervised prescription medications.

CONCLUSION :

We could conclude that there is a strong association between caregiver burden and compliance to the treatment. At present, there are no programmes or intervention policies that guarantee the caregiver proper assistance and therefore the caregivers end up playing a role that they may not have the physical, psychological and financial support to manage with the stress. So, it is expected that the findings presented in our study may contribute to further studies and to the creation of intervention strategies targeting the informal caregiver, since they suffer the consequences of the psychiatric disorder and the caregiving role on a daily basis, even when the patient has not been diagnosed.

LIMITATIONS:

The study having limited number of sample, it could be better after collecting more number of samples, and involving more than one tertiary care hospital from different area.

ACKNOWLEDGEMENT:

We would also like to show our gratitude to ***Mahima Jain*** for sharing their pearls of wisdom with us during the course of this research

REFERENCES :

1. World Health Organization (WHO), 2008. The Global Burden of Disease: 2004 Update. WHO Press, Geneva.
2. World Federation of Mental Health (WFMH), 2010. Caring for the Caregiver: Why Your Mental Health Matters When You Are Caring for Others. WFMH, Woodbridge, VA.
3. Avasthi A. Preserve and strengthen family to promote mental health. Indian J Psychiatry. 2010;52(2):113 126
4. Ory MG, Hoffman RR 3rd, Yee JL, Tennstedt S, Schulz R. Prevalence and impact of caregiving: a detailed comparison between dementia and nondementia caregivers. Gerontologist. 1999;39:177-85
5. Awad AG, Voruganti LN. The burden of schizophrenia on caregivers: a review. Pharmacoeconomics. 2008;26(2):149-62.
6. Hadrys T, Adamowski T, Kiejna A. Mental disorder in Polish families: is diagnosis a predictor of caregiver's burden. Soc Psychiatry Epidemiol. 2011;46:363–72
7. Magliano. L, Fadden G, Madianos M, de Almeida JM, Held T, Guarneri M, et al. Burden on the families of patients with schizophrenia: results of the BIOMED I study. Soc Psychiatry Psychiatr Epidemiol. 1998;33:405–12.
8. WHO (World Health Organisation), "Adherence to Long Term Therapies: Evidence for Action," 2003.
9. DiMatteo MR, Zolnierek KBH, Martin LR. Improving Patient Adherence: A Three Factor Model to Guide Practice. Health Psychology Review 2012;6:74-91.
10. Al Ghurair SA, Hughes CA, Simpson SH, Guirguis LM. A Systematic Review of Patient Self-Reported Barriers to Adherence to Antihypertensive Medications Using the World Health Organization Multidimensional Adherence Model, The Journal of Clinical Hypertension. 2012;14:877-886.
11. Kripliano S, Yao X, Haynes RB. Interventions to Enhance Medication Adherence in Chronic Medical Conditions: A Systematic Review. Archives of Internal Medicine. 2007;167:540-50.
12. Simpson RJ. Challenges for Improving Medication Adherence. Journal of the American Medical Association.2006;296:2614-16.
13. Organization WH. ICD-10 : international statistical classification of diseases and related health problems. 2nd ed.: World Health Organization; 2004.
14. Zarit SH, Reever KE, Bach-Peterson J. Relatives of the impaired elderly:correlates of feelings of burden. The Gerontologist. 1980;20:649–55.
15. Hogan TP, Awad AG, Eastwood R. A self-report scale predictive of drug compliance in schizophrenics: reliability and discriminative validity. Psychol Med 1983;13:177–183.
16. World Health Organization. Adherence to long-term therapies—evidence for action 2003. Available at: http://www.who.int/chronic_conditions/en/adherence_report.pdf.2003.
17. Zhou, Yanling et al. Comparison of burden among family members of patients diagnosed with schizophrenia and bipolar disorder in a large acute psychiatric hospital in China. BMC psychiatry. 2016;16:1283.
18. Giovanna Del Grande da Silva, Karen Jansen, Luana Porto Barbosa, Jerônimo da Costa Branco, Ricardo Tavares Pinheiro Pedro Vieira da Silva Magalhães,etal. Burden and related factors in caregivers of young adults presenting bipolar and unipolar mood disorder. International Journal of Social Psychiatry. 2014;60:396–402
19. Shrank WH, Liberman LN, Fischer MA, Kilabuk E, Girdish C, Cutrona S et al. Are Caregivers Adherent to Their Own Medications? Journal of the American Pharmacists Association 2011;51:53-59.
20. Ganguly KK, Chadda RK, Singh TB. Caregiver Burden and Coping in Schizophreniaand Bipolar Disorder: A Qualitative Study. American Journal of Psychiatric Rehabilitation. 2010;13:126-42.
21. Ogilvie AD, Morant N, Goodwin GM. The burden on informal caregivers of people with bipolar disorder. Bipolar Disorders 2005;7:25–32.
22. Martire LM, Hinrichsen GA, Morse JQ, Reynolds CF 3rd, Gildengers AG, Mulsant BH et al. The Mood Disorder Burden Index: a scale for assessing the burden of caregivers to adults with unipolar or bipolar disorder. Psychiatry Res. 2009;168(1):67-77.
23. Chakrabarti S, Kulhara P, Verma SK. Extent and determinants of burden among families of patients with affective disorders. Acta Psychiatr Scand. 1992;86:247–252.
24. Perlick DA, Rosenheck RA, Clarkin JF, Maciejewski PK, Sirey J, Struening E et al. Impact of family burden and affective response on clinical outcome among patients with bipolar disorder. Psychiatr Serv. 2004;55:1029-35.
25. Chakrabarti S, Gill S. Coping and its correlates among caregivers of patients with bipolar disorder: a preliminary study. Bipolar Disord. 2002;4:50–60.
26. Perlick D, Clarkin JF, Sirey J, Raue P, Greenfield S, Struening E, Rosenheck R. Burden experienced by care-givers of persons with bipolar affective disorder. Br J Psychiatry. 1999;175:56–62.
27. Pompili M, Harnic D, Gonda X, et al. Impact of living with bipolar patients: Making sense of caregivers' burden. World J Psychiatry. 2014;4(1):1–12.
28. Cuevas C, Peñate W, De Rivera L. To what extent is treatment adherence of psychiatric patients influenced by their participation in shared decision making?. Patient Prefer Adherence. 2014;8:1547–1553.