

## Behavioural Problems and Patterns of Psychopharmacological Treatment given in Elderly Patients with Dementia

Dr. Prakash Jha<sup>1\*</sup>, Dr. Rahul Mishra<sup>2</sup>, Dr. Rakesh Ghildiyal<sup>3</sup>

### ABSTRACT

Behavioural and psychological symptoms are very common in dementia patients. Alterations in multiple neurotransmitter systems are involved in the pathogenesis of behavioural and psychological symptoms of dementia (BPSD). These symptoms complicate the therapy and outcome. Because of multi morbidity and poly pharmacy the therapy of BPSD is difficult and needs continuous clinical observation of the patients.

It is a case series review of the patients attending the clinic for elderly at the Department of psychiatry and the purpose is to assess the behavioural and psychological problems associated with dementia and patterns of psychopharmacological interventions given to these patients, also to assess outcome of these patients on OPD basis. Inclusion Criteria consisted of patients with dementia presenting to psychiatry OPD and willing to participate in the study after informed consent. Patients with severe medical problems or severe psychiatric illness rendering them uncooperative for interview were excluded. Case files were used to collect cases and respective treatment given were used for the study. Behavioural Pathology in AD Rating Scale (BEHAVE-AD scale) was used to assess the severity of BPSD symptoms based on care givers objective data.

A total of 50 cases meeting the criteria with predominant behavioural problems were taken for the study who were willing to participate and had given informed consent. Agitation, aberrant motor behaviour, anxiety, elation, irritability, depression, apathy, disinhibition, delusions, hallucinations, and sleep or appetite changes were most frequent complaints in our study sample. Care giver psychoeducation, cognitive enhancers (Donepezil and Memantine), Haloperidol and Escitalopram were commonly employed in management of our patients with favourable outcome.

BPSD was found to be present in 37.5% of our subjects and is in line with the findings of international patients having dementia with behavioural and psychological problems.

**Keywords:** *Dementia, Agitation, Anxiety, Irritability, Disinhibition, Psychoeducation, Haloperidol*

<sup>1</sup> (Resident, Department of Psychiatry MGM Medical College, Navi Mumbai, India)

<sup>2</sup> (Senior Resident, Department of Psychiatry MGM Medical College, Navi Mumbai, India)

<sup>3</sup> (Prof & HOD, Department of Psychiatry MGM Medical College, Navi Mumbai, India)

\*Responding Author

Received: November 20, 2018; Revision Received: December 17, 2018; Accepted: December 26, 2018

## Behavioural Problems and Patterns of Psychopharmacological Treatment given in Elderly Patients with Dementia

India is going through a phase of rapid demographic aging. The number of people with dementia and other late life mental health problems are expected to increase in the near future. Research and dissemination of research findings are important for service development and training.<sup>[1]</sup>

As part of the natural history of dementia, most patients experience changes in mood, perception, thought and personality. These phenomena are common and are a source of both patient distress and caregiver burden. These neuropsychiatric symptoms have been designated “behavioural and psychological symptoms of dementia” (BPSD) by the International Psychogeriatric Association.<sup>[2]</sup>

### MATERIALS AND METHODS

#### *Aims and Objectives*

1. To Study the Behavioural and Psychological Symptoms Associated with Dementia
2. To assess BPSD symptoms using standardized scale

#### *Methods*

It was a case series review of the patients attending the clinic for Senile Disorders at the Department of psychiatry and the purpose was to assess the behavioural and psychological problems associated with dementia and patterns of psychopharmacological interventions given to these patients on OPD basis. A total of 08 cases were assessed for BPSD in cases where dementia has been established consulting psychiatrist using DSM 5 criteria.

***Inclusion criteria:*** Elderly Patients with dementia presenting to psychiatry OPD and willing to participate in the study after informed consent.

***Exclusion Criteria:*** Patients with severe medical problems or severe psychiatric illness rendering them uncooperative for interview were excluded. Case files were used to collect cases and respective treatment given were used for the study.

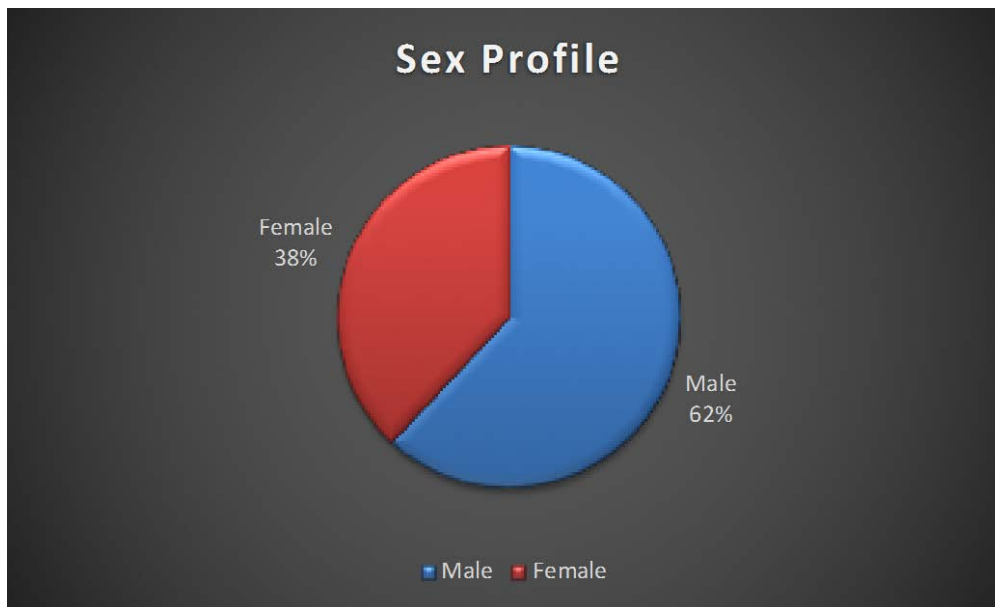
#### *Materials*

Patients were evaluated using a structured interview format used in the clinic for Senile disorders at the Department of Psychiatry and BEHAVE-AD scale a well-established instrument, designed to assess potentially remediable behavioural symptoms in dementia. It consists of 25 symptoms grouped into seven categories. Each symptom is scored on the basis of severity on a four-point scale. BEHAVE-AD had ICC of 0.91 ( $P < 0.001$ ).<sup>[3]</sup>

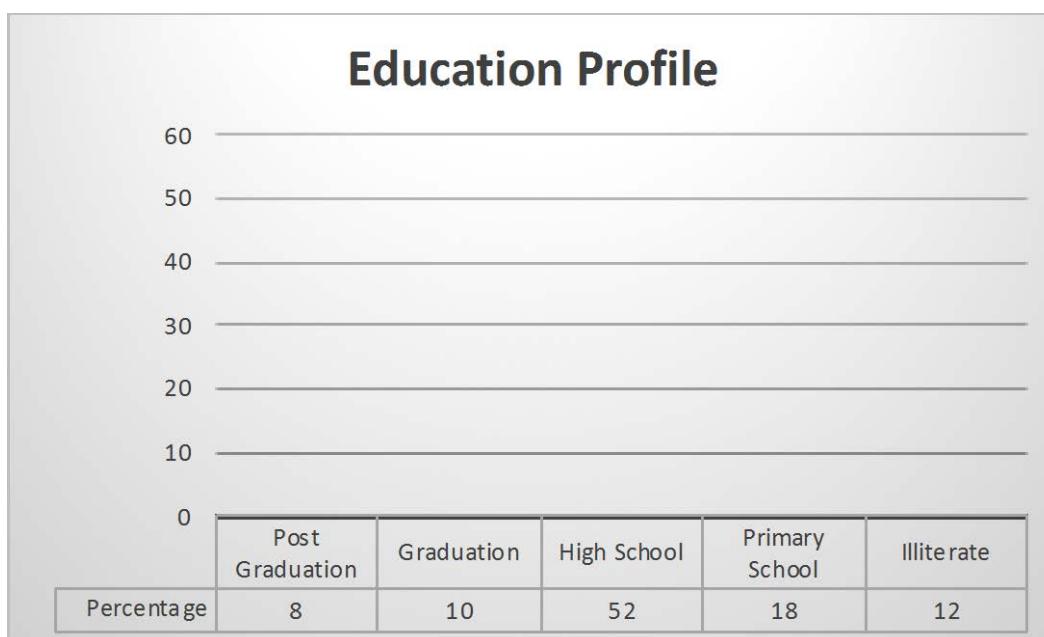
## Behavioural Problems and Patterns of Psychopharmacological Treatment given in Elderly Patients with Dementia

### RESULTS

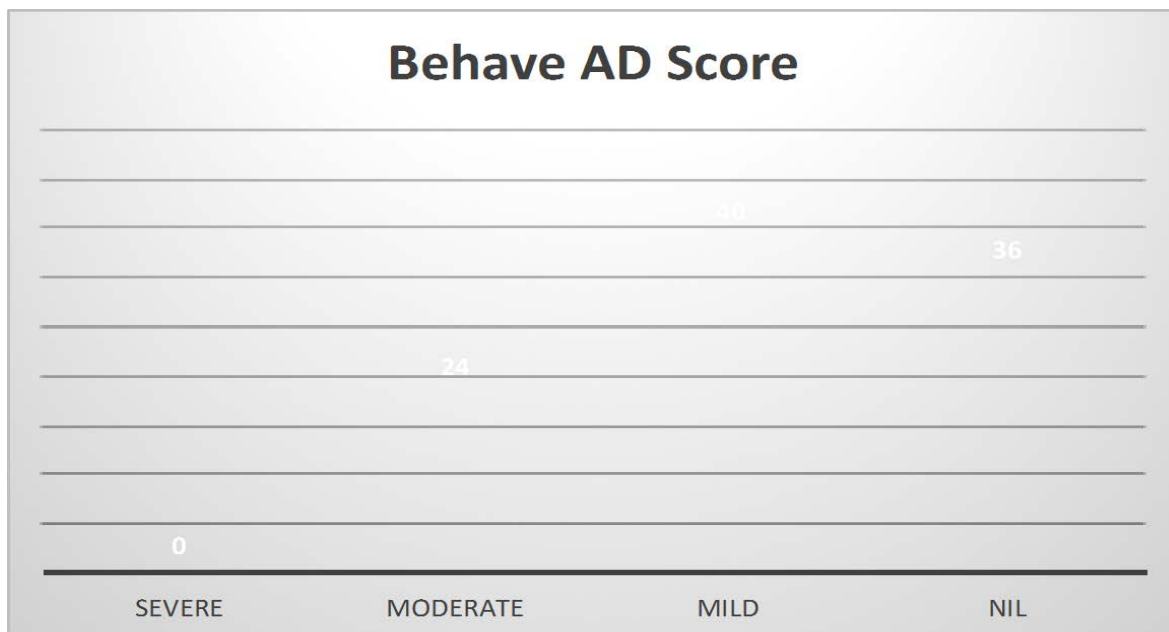
A total of 50 cases were studied within a month period who met the inclusion and exclusion criteria and gave consent to participate in the study. These cases had an established diagnosis given by the consultant using DSM 5 criteria. Out of the 50 patients n= 19(38%) were females and n= 31(62%) were males.



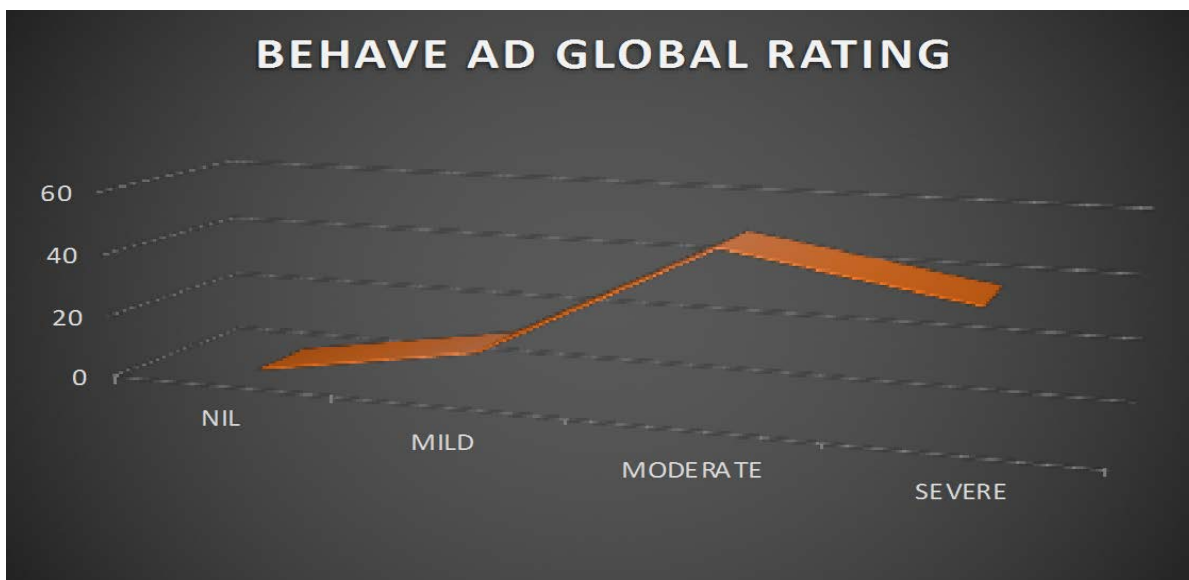
Education plays an important role in prevention of dementia as has been shown in many studies and also is a preventive factor of Dementia in our study sample n=26 (52%) were educated upto high school, n=9 (18%) up to primary school, n= 6 (12%) were illiterate, n=5 (10%) were graduates and n= 4(8%) were postgraduates.



**Behavioural Problems and Patterns of Psychopharmacological Treatment given in Elderly Patients with Dementia**



Of the 50 cases 12(24%) had moderate symptoms of BPSD while 20 (40%) had mild symptoms of BPSD, others reported no behavioural changes.



On the Global rating scale, 19(38%) patients were reported to be severe to moderately troubling to the care giver, 25(50%)patients were found to be moderately troubling to the patient and 6 (12%) were found to be mildly troubling to the care giver. No association could be found between MMSE scores and BPSD scores ruling out co-relation between severity of dementia and BPSD in our study. Agitation, aberrant motor behaviour, anxiety, irritability, disinhibition, delusions and sleep or appetite changes were most frequent complaints in our study sample Delusion being most frequently reported symptom. Haloperidol in oral form in small dosage was the most frequently advised Psychopharmacological agent for control of BPSD also Quetiapine were also prescribed to the patients.

## DISCUSSION

The BPSD have several domains which show differences among the various types of dementia, with studies showing predominance of hallucinations in dementia with Lewy bodies, depression and apathy in vascular dementia, of apathy, disinhibition, elation, appetite or eating changes in fronto-temporal dementia, and of apathy, agitation, depression, anxiety, and sleep disorders for Alzheimer's disease. These lead to increased institutionalization and cause significant distress to the care givers.<sup>[4]</sup>

Incidence of Behavioural and Psychological Symptoms of Dementia (BPSD) has been reported at about 25% to 80% in patients with Alzheimer's disease. Behavioural and Psychological Symptoms of Dementia bring about consequences and high health care costs to both families and the society. While psychological and behavioural symptoms are a major domain of dementia, they are not yet considered as an important geriatric health issue in developing countries.<sup>[5]</sup>

Evaluation of BPSD includes a thorough diagnostic investigation, consideration of the aetiology of the dementia, and the exclusion of other causes, such as drug-induced delirium, pain, or infection. Care of patients with BPSD involves psychosocial treatments for both the patient and family. BPSD may respond to those environmental and psychosocial interventions, however, drug therapy is often required for more severe presentations. Clinicians should discuss the potential risks and benefits of treatment with patients and their surrogate decision makers, and must ensure a balance between side effects and tolerability.<sup>[6]</sup> Nilamadhab Kar in his review article on BPSD found it to be present in 64% of subjects ranging from mild to moderate in severity and is in line with the findings of international studies a study assessing severity, BPSD were severe in 36.6% of the patients, moderate in 49.3%, and mild in 14.1%.<sup>[7]</sup> Vaingankar JA *et al* in their study of prevalence of BPSD found the Prevalence of BPSD to be 67.9% and 30% of the population had experienced three or more BPSD in the past month. "psychosis and behavior dysregulation" and "mood disturbance and restlessness" were frequently reported.<sup>[8]</sup> Elizabeth C Hersch *et al* in their article Management of the behavioral and psychological symptoms of dementia found the prevalence of BPSD to be more than 75% of patients in nursing homes. The prevalence of BPSD in these 24 hour care settings was reported to be as high as 90%, in their study.<sup>[9]</sup>

Rajal Devshiet *al* in their review article found that Behavioural and psychological symptoms of dementia (BPSD) effect up to 90% of those diagnosed with dementia at any given point in the duration of their illness.<sup>[10]</sup>

Feng Wang *et al* in their article which included two meta-analyses and two randomized controlled trials, indicated that the efficacy of typical antipsychotics in controlling BPSD is limited, whereas the side effects are common. Haloperidol can effectively control the aggression of patients with dementia; also amongst the atypical antipsychotics Olanzapine was the preferred choice of treatment followed by Risperidone.<sup>[11]</sup> Whereas in our study Haloperidol and Quetiapine were most commonly prescribed to control the behaviour of the patients and was common institutional practice.

Future studies to co relate severity of dementia with presence of behavioural and psychological symptoms should be incorporated with a large sample size. Global rating score also undermines the attitude of caregivers towards the patient and should be helpful in psychoeducation of them in due course of treatment.

## **CONCLUSION**

BPSD is a severe disorder of elderly and worsens the outcome of Dementia and also effects the patients and care givers alike. Special attention is needed to diagnose treat and psychoeducate the patients and care givers respectively. Future studies including the Neuropsychiatric Profile, co relation amongst the severity of Dementia and Severity of BPSD would lead to better understanding and better treatment outcomes of Dementia.

## **REFERENCES**

1. Shaji K S, Jithu V P, Jyothi K S. Indian research on aging and dementia. *Indian J Psychiatry* 2010;52, Suppl S3:148-52
2. Gupta M, Dasgupta A, Khwaja GA, Chowdhury D, Patidar Y, Batra A. The profile of behavioral and psychological symptoms in vascular cognitive impairment with and without dementia. *Annals of Indian Academy of Neurology*. 2013;16(4):599-602. doi:10.4103/0972-2327.120488.
3. Monteiro IM, Boksay I, Auer SR, Torossian C, Ferris SH, Reisberg B. Addition of a frequency-weighted score to the Behavioral Pathology in Alzheimer's Disease Rating Scale: the BEHAVE-AD-FW: methodology and reliability. *Eur Psychiatry*. 2001 Jan;16 Suppl 1:5s-24s. PubMed PMID: 11520474
4. Mukherjee A, Biswas A, Roy A, Biswas S, Gangopadhyay G, Das SK. Behavioural and Psychological Symptoms of Dementia: Correlates and Impact on Caregiver Distress. *Dementia and Geriatric Cognitive Disorders EXTRA*. 2017;7(3):354-365. doi:10.1159/000481568.
5. Javadpour, Ali & Reza Shenavar, Mohamad & Dehghani, Mina & Jafar Bahredar, Mohammad. (2017). Frequency and Correlates of Behavioral and Psychological Symptoms in a Group of Iranian Patients with Dementia. *Shiraz E-Medical Journal*. In Press. 10.17795/semj33852.
6. Hersch EC, Falzgraf S. Management of the behavioral and psychological symptoms of dementia. *Clinical Interventions in Aging*. 2007;2(4):611-621.
7. (2009). Behavioral and psychological symptoms of dementia and their management. *Indian journal of psychiatry*, 51 Suppl 1(Suppl1), S77-86.
8. Vaingankar JA, Chong SA, Abdin E, Picco L, Jeyagurunathan A, Seow E, Ng LL, Prince M, Subramaniam M. Behavioral and psychological symptoms of dementia: prevalence, symptom groups and their correlates in community-based older adults with dementia in Singapore. *Int Psychogeriatr*. 2017 Aug;29(8):1363-1376. doi:10.1017/S1041610217000564. Epub 2017 Apr 18. PubMed PMID: 28416031.
9. Hersch, E. C., & Falzgraf, S. (2007). Management of the behavioral and psychological symptoms of dementia. *Clinical interventions in aging*, 2(4), 611-21.
10. Devshi, R., Shaw, S., Elliott-King, J., Hogervorst, E., Hiremath, A., Velayudhan, L., Kumar, S., Baillon, S., ... Bandelow, S. (2015). Prevalence of Behavioural and Psychological Symptoms of Dementia in Individuals with Learning Disabilities. *Diagnostics (Basel, Switzerland)*, 5(4), 564-76. doi:10.3390/diagnostics5040564
11. Wang, F., Feng, T. Y., Yang, S., Preter, M., Zhou, J. N., & Wang, X. P. (2016). Drug Therapy for Behavioral and Psychological Symptoms of Dementia. *Current neuropharmacology*, 14(4), 307-13.

## Behavioural Problems and Patterns of Psychopharmacological Treatment given in Elderly Patients with Dementia

### *Acknowledgments*

The authors profoundly appreciate all the people who have successfully contributed in ensuring this paper in place. Their contributions are acknowledged however their names cannot be mentioned.

### *Conflict of Interest*

There is no conflict of interest.

**How to cite this article:** Jha, P, Mishra, R & Ghildiyal, R (2018). Behavioural Problems and Patterns of Psychopharmacological Treatment given in Elderly Patients with Dementia. *International Journal of Indian Psychology*, 6(4), 89-95. DIP:18.01.090/20180604, DOI:10.25215/0604.090