A Cross Sectional Study of Severity of Dementia and the Behavioral and Psychological Symptoms in Out-Patients Attending Dementia Clinic

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Abstract

Background: Dementia is one of the most comment neuropsychiatric disorder affecting elderly population. These disorders are progressive, incurable, disabling and pos a great challenge to patients, their families and public health care systems. **Aims and Objectives:** 1. To study the Socio-demographic profile of the patients diagnosed with Dementia. 2. To assess the severity and duration of their illness. 3.To study the different behavioral and Psychological symptoms associated with the illness. **Materials and Methods:** 45 consecutive patients diagnosed to be suffering from Dementia as per ICD-10 criteria and attending Dementia clinic were enrolled after due informed consent. Socio-demographic and illness related variables were recorded. CDR scale was used for assessing the severity of dementia and NPT scale was used for assessing behavioral and psychological symptoms of dementia (BPSD). The data was analyzed using appropriate statistical method. **Results:** The mean age of our study population was 77.13 years with a male predominance with higher percentage of educated and middle class, married. The mean total duration of illness was 5.54 years. The severity of dementia rating scale shows 40% had mild dementia, 33.3 % had severe dementia 26.7% had moderate dementia. **Conclusion:** Our study shows significant proportion of patients with mild dementia and decreased prevalence behavioral and psychological symptoms in comparison to many other studies reviewed. This may be due to increased awareness among the population in our community and relatively higher education and socio-economic class. There is also a possibility that early initiation of treatment reduce the occurrence of BPSD. This needs further study.
Key Words: Dementia, behavioral are psychological symptoms of dementia (BPSD)

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Access this article online	
Quick Response Code:	Website: www.medpulse.in
	DOI: https://doi.org/10.26611 /1072123

INTRODUCTION

India is witnessing on unprecedented pace of demographic age in with comparatively little time and resource to develop service targeted for the elderly.[1] Dementia is one of most common neuropsychiatric disorder affecting this population. These-disorder are progressive, incurable, disabling and pose a great challenge to patients, their families and public health care systems. Home based care is the only option available in our country. Estimate of survival after the onset of demntia range from 04-12 years.[2,4,6] According to Alzheimer's Disease International (ADI) Delhi consensus study, by 2040, 71% of all dementia patients will be living in developing countries. It is estimated that there are 1.5 million people in India with Dementia and this number is likely to increase by 300% in the next 4 decades.[5] The networking of Indian dementia researchers bag on in 1998 with formation of 10/66 Dementia Research Group of Cochin. Some of current priorities of research are : contribution of dementia and other chronic dispenses to disability and dependence, study

of the care arrangements of patients with dementia and use of health services by people with dementia.[5,7] Behavioral and Psychological symptoms of Dementia (BPSD) can be discribed as a heterogeneous rang of Psychological reaction, Psychiatric symptoms and behaviors occurring in people with dementia of any elrology[8] Clinically significant BPSD are found in approximately one third of community dwelling patients of dementia.[9,10] The prevalence of BPSD are associated with increased morbidity increased cost of care, and poorer quality of life for the patients and their caregivers.[12] A comprehensive evaluation to diagnoses BPSD and planning appropriate treatments will revise undue suffering in patients and their families.

Our study population has some unique characteristics when compared to the rest of the population in India. The subject are beneficiaries of contributory health service schemes with at least one person in the family employed or receiving pension. Comprehensive and high quality health care is provided with no restriction on cost of treatment. All new drag of proven efficacy are used. Economic factors, lack of access to health care, out of pocket cost of treatment etc. do not impact the course and out come of disorder. Secondly, we maintain a regular follow up and health records of our patients for a significantly lone duration. Hence the above factors that might prove to be the limitations of research in a developing country like India are eliminated. This study attempts to enhance the understanding of Dementia in the health care setting. It would also help us to understand the psychiatric health care needs of this population.

MATERIAL AND METHODOLOGY

This was cross sectional study carried out at department of Psychiatry during year 2019 to 2020 in patients who were taking treatment at Psychiatry and medicine department were taken consent for taking interview. 45 consecutive patients diagnosed to be suffering from Dementia as per ICD-10 criteria with patients having a reliable care gives attending the OPD with them and patients who are suffering from any existing Psychiatric illness, medical illness, locomotors impairment is exclusion.

RESULT

Table 1: Distribution according Age

Age in years	No. of Patient	0 % of Patient
65 years	01	02.02
65-75 years	18	40.00
75 years	26	57.08
Total	**45**	**100.00**

In our study, patients with dementia were in age group of 48-90 years, the mean age of sample was 77.13 years medium age was 78 years, and mode age was 79.74 years.

In this study, 26 patients were older then 75 years (57.8%) followed by 18 patients between 65-75 years (40%), one patient was less than 65 years. The majority of patients were fovour to be order than 75 years.

Table 2: Distribution according to Sex

Sex	No. of Patient	0 % of Patient
Male	33	73.03
Female	12	26.07
Total	**45**	**100.00**

In our study of 33 were males (77.30%) and 12 were females (26.07%)

Table 3: Distribution according to education

Education	No. of Patient	0 % of Patient
Illiterate	04	08.09
Till Class 05	06	13.03
06 to 10th	14	31.01
11-12t	06	13.03
Graduate	09	20.00
Post graduate	06	13.03

Among the 45 patients, 14 patients had education from 06-10th standard, followed by 09 patients of graduate, 06 patients had only primary school education, 06 patients had studied till junior college (11-12th), a sizable number of patients were having education till Post-graduate level (06 patients), while 04 patients did not receive any formal education.

Table 4: Distribution according to Occupation

Occupation	No. of Patient	% of Patient
Homemakar	08	17.08
Un-skilled	03	06.07
Semi-skilled	17	37.08
Professional	17	37.08
Total	**45**	**100.00**

It was found that 17 patients were involved in professional service and equal number of patients (17) was involved in semi-skilled jobs, only 03 patients were involved in un-skilled work and 08 patients were homemakers. Hence, it was found that 75.06% were in combined professional and semi-skilled group.

Table 5: Distribution according to socio-economic status

Socio-economic Status	No. of Patient	% of Patient
Lower middle class	04	08.09
Middle class	26	57.08
Upper middle class	14	37.01
Upper class	01	02.02
Total	**45**	**100.00**

It was found that a large proportion of patients 57.08% are from Middle class, 31.01% patients from upper middle class, 08.09% of lower middle class and 02.02% patients were upper class.

Table 6: Distribution according to marital status

Marital Status	No. of Patient	% of Patient
Married	39	86.07
Widow / widower	06	13.03
Total	**45**	**100.00**

In our study all patients were married 13.03 % patients had lost their spouse.

Table 7: Distribution according to primary care gives

Primary care giver	No. of Patients	% of Patients
Wife	21	46.17
Daughter-in-law	19	42.02
Daughter	01	02.02
Husband	02	04.04
Old age home	01	02.02
Self	01	02.02
Total	**45**	**100.00**

In all the 45 Patients the primary care giver providers were noted. It was found that for 21 patients, the primary care giver was wife. This was followed by daughter-in-law primary care giver, 19 patients (42.02%). The other care taker were husband (in 2 cases), daughter (in 1 case). One patient was staying alone. One patient was in an institution.

Table 8: Distribution according to age at diagnosis

Age at diagnosis	No. of Patient	% of Patient
< 65 years	03	06.02
> 65 years	42	93.03
Total	**45**	**100.00**

In our study majority of patients 42 (93.03%) were aged more than 65 years, at the time of diagnosis and only 03 patients were < 65 years of age.

Table 9: Distribution according to severity of the time of diagnosis

Severity at the time of Diagnosis	No. of Patients	% of Patients
Mild	36	80
Moderate	07	15.06
Severe	02	04.04
Total	**45**	**100.00**

In our study majority of patients (36 i.e. 80%) were having dimension of mild severity at the time of diagnosis, 07 patients (15.06%) had dementia of moderate severity and 02 patients (04.04%) had sever dementia at the time of diagnosis.

C.D.R. Clinical Dementia rating scale -

Table 10: Distribution accoding to orientation impairment

Orientation impairment on CDR	No. of Patients	% of Patients
0	05	11.01
0.5	08	17.08
1	15	33.03
2	07	15.06
3	10	22.02
Total	**45**	**100.00**

In our study according to orientation domain of CDR (Clinical dementia Rating Scale), 11.01 % of patients were no orientation impairment 17.08 % had questionable impairment, 33.03 % had mild, 15.06% had moderate and 22.02% had severe orientation impairment.

Table 11: Distribution according to behavioral and Psychological symptom of dementia (NPI-Neuron Psychiatric Inventory - score)

NPI Score	No. of Patients	% of Patients
0	23	51.01
1	11	24.04
2	07	15.06
3	03	06.07
4	01	02.02
Total	**45**	**100.00**

According to Neuropsychiatric Inventory score, had at least one symptom of BPSD on NPI, 15.06%(n=7) had 2 domains of NPI, 06.07% (n=3) had 3 domains of NPI and 02.02% (n=1) had 4 domains of NPI.

Table 12: Distribution of frequency of delusion

Frequency of delusion of NPI	No. of Patients	% of Patients
0	42	93.04
1	00	00.00
2	02	04.04
3	01	02.02
Total	**45**	**100.00**

According to delusion domain of NPI 06.06% out of which 04.04% scored 2 and 2.2 % scored 3 on frequency of delusion.

Table 13: Distribution of frequency of hallucinations

Frequency of Hallucination	No. of Patients	% of Patients
0	42	93.04
1	00	00.00
2	02	04.04
3	01	02.02
Total	**45**	**100.00**

According to delusion domain of NPI 06.06% had hallucination out of which 04.04% scored 2 and 2.2% scored 3 on frequency of hallucination.

Table 14: Distribution of frequency of agitation / aggression

Frequency of Agitation/ Aggression on NPI	No. of Patients	% of Patients
0	39	86.07
1	01	02.02
2	04	08.09
3	01	02.02
Total	**45**	**100.00**

According to agitation / aggression domain of NPI, 13.03% had agitation / aggression, out of which 02.02% scored 1, 08.09% scored 2, and 02.02% scored 3 on frequency of agitation / aggression.

Table 15: Distribution of frequency of depression / dysphasia

Frequency of Depression/ dysphoria on NPI	No. of Patients	% of Patients
0	43	95.06
1	00	00.00
2	02	04.04
Total	**45**	**100.00**

According to depression / dysphasia domain of NPI, 04.04% had depression / dysphasia scored 2 on frequency of depression / dysphasia.

Table 16: Distribution of frequency of Anxiety

Frequency of Anxiety on NPI	No. of Patients	% of Patients
0	43	95.06
1	00	00.00
2	02	04.04
Total	**45**	**100.00**

According to frequency of Anxiety domain of NPI, 04.04% had Anxiety scored 2 on frequency of Anxiety.

Table 17: Distribution of frequency of elation / euphoria

Frequency of Elation/ euphoria	No. of Patients	% of Patients
0	45	100.00
Total	**45**	**100.00**

According to frequency of elation / euphoria of NPI 100% of patients did not have elation / euphoria.

DISCUSSION

Dementia is a condition in which there is loss of memory, language, problem-solving and thinking ability which interfere with daily life. In our study patients with dementia were in age group of 48-92 years are mean age of sample is > 75 years, and 33 were male and 17 are female, 14 patients had education from 06-10 th standard followed by 09 patients graduate, 06 patients had only primary school education, 06 patients had studied till Jr. College, 06 patients education till Post-graduate level. It was also found that 17 patients were involved in professions serve and 17 was in semiskilled jobs, only 03 patients were involved in unskilled work and 08 patients were homemakers. It was found that 57.08% are from Middle class, 08.09% of lower middle class and 02.02% patients were upper class. In our study all patients were married one, but 06 patients lost their spouse and 21 patients wife is primary case giver, 19 patients care gives is daughter-in-law. The other caretaker were husband and 01 patient was staying alone and one patient was in an institution. It is also found that, majority of patient 93.03% were aged more than 65 years at the time of diagnosis and only 06.02% were < 65 years of age. In our study majority of patients i. e. 80% were having dementia of mild severity at the time of diagnosis, 15.06% had moderate severity and 04.04% had sever dementia at the time of diagnosis. In our study 92% of patients had psychological symptoms like, delusion, hallucinations, agitation/aggression and depression/dysphasia.

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Source of Support: None Declared
Conflict of Interest: None Declared