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Original Research Paper

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SOCIODEMOGRAPHIC AND CLINICAL PROFILE OF DEMENTIA PATIENTS AT TERTIARY CARE CENTRE

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ABSTRACT

Background- Dementia impacts not only the individuals with dementia, but also their carers and the society in which they are living. Dementia is the 9th most burdensome condition among people aged 60 years and more, according to the 2010 Global Burden of Disease (GBD) estimates. People with dementia lack insight about their change in behaviour, even sometime they denied that they have memory deficit and change in behavior. Almost always signs of dementia are first noticed by spouse, other family members or friends. So many time patients are brought to hospitals only when their altered behavior became problematic to their care giver. The increasing number of persons with dementia will place a heavy demand on health care system and social services. The Sociodemographic risk factors and clinical correlates of dementia are not well explored.

Aims & Objectives- 1) To study clinical and Sociodemographic profile of dementia patients.
2) To measure the severity of dementia by using Dementia Severity Rating Scale

Material & Methods- The study was conducted by including participants above age 55 years. Subjects were taken from Dept of psychiatry, MGM Medical College and MYH, Indore fulfilling the inclusion and exclusion criteria. Written informed consent will be taken after explaining the objectives and procedure of study in detail. Data were entered in excel sheet and analyzed using SPSS Software, appropriate statistical test was applied wherever necessary.

Results- The mean DSRS score in ADRD and VaD group were 26.37 and 30.7 respectively, the study did not found any correlation of dementia severity with education and place of residence.

Conclusion – Low education in rural area and place of residence did not affect dementia presentation.

KEYWORDS : dementia, socio-demography, co-morbidities

INTRODUCTION-

Dementia in the elderly was called senile dementia or senility, and viewed as a normal and inevitable aspect of being old, rather than as a disease caused by some agent[1]. The number of cases of dementia worldwide in 2010 was estimated at 35.6 million and in them about10% i.e. 3.5 million Dementic patients are living in India. In India about 8% populations is in the elder age group in which 3.6% elderly person have dementia[2]. In present century, many types of dementia have been differentiated from Alzheimer's dementia and dementias of vascular origin (these two being the most common types, Alzheimer's disease which makes up 50% to 70% of cases and vascular dementia about 25%). The different types of dementia have differing prognoses and also differing sets of associated socio-demographic risk factors[3].

Many studies showed association with educational level coronary artery diseases, and other medical conditions and psychiatric disorders[4,5] with dementia. Psychiatric disorders commonly found in patients with dementia and negatively affect their caregivers[6,7] their quality of life. Therefore, neuropsychiatric symptoms and mental disorders of patients with dementia need to be assessed and treated indepe ndently[8].

Due to continuous increase in life expectancy, the impact of dementia on healthcare systems, on families and caregivers are also increasing[9,10,11]. Many clinicians lack knowledge of the epidemiology of dementia and expertise in distinguishing normal aging symptoms from dementia[12]. This study was aimed to determine the demographic profile of patients with dementia, to identify associated co-morbidities and risk factors in patients attending hospital's OPD.

AIMS & OBJECTIVES-

1) To study clinical and Sociodemographic profile of dementia patients.
2) To measure the severity of dementia by using Dementia Severity Rating Scale

METHODOLOGY-

The study was conducted within a period of one year. Those patients or attainders who agreed to participate in the study were provided written informed consent. In those who given consent diagnosis of dementia was made by the treating psychiatrist by using ICD-10 diagnostic guideline. The questionnaire about the demographic variables such as age, sex, educational level, religion, and place of residence; type of dementia (Alzheimer's disease related dementia, vascular dementia, or other types of dementia); and only clinical co-morbidities such as hypertension (HTN); coronary artery diseases (CAD); diabetes mellitus (DM) and psychiatric disorders were included; thereafter responses were collected. In other dementia Creutzfeldt-Jakob disease (CJD); dementia in Huntington's disease and fronto-temporal dementias were included. Those educated below primary standard were included in illiterate or low education group and those educated above high school were considered in higher education group Thereafter severity of dementia in all participants was evaluated by using Dementia Severity Rating Scale (DSRS). The DSRS score were categorized into mild, moderate and severe. The obtained data were entered into the excel sheet. The data were analysed using SPSS (Statistical Package for Social Sciences) 20.0 version, IBM, Chicago.

RESULTS-

During study period total 101 patients were included in study

among them 52 were Alzheimer's Disease Related Dementias (ADRD) group; 41 of Vascular dementia (VaD) group and 8 patients were of other dementia.

Table 1. Description of age of study participants in all three groups.

Age (in years)	Groups		
	ADRD group	VaD group	Other dementia
Mean	65.33	67.12	67.00
Median	66.50	65.00	66.50
Standard Deviation	8.972	10.135	10.114
Minimum	55.00	55.00	55.00
Maximum	85.00	85.00	80.00

The mean age of ADRD group was about 65.33±8.9 years; VaD group was 67.12 ±10.1 years and for other dementia it was 67.00±10.1 years. According to the inclusion criteria minimum age was kept 55 years, maximum age was the 80 years in other dementia group while 85years in ADRD and VaD groups of participants.

Table 2. Description of gender, residence and religion frequency distribution of study participants in all three groups.

Group	Gender		Residence		Religion			Total
	Male	Female	Rural	Urban	Hindu	Muslim	Other	
ADRD	32	20	31	21	43	7	2	52
VaD	29	12	26	15	36	4	1	41
Other	4	4	5	3	6	2	0	8
Total	65	36	62	39	85	13	3	101

The number of male participants was more in ADRD and VaD groups as compared to female participants. While other dementia groups has equal numbers of male and female participants. Female constituted 35.6% of all participants, VaD group have comparatively more male patient while ADRD comparatively have more female patients. Patients from rural residence were more as compared to urban dwellers (61.3%). Religion wise Hindus were outnumbered rest (84.1%).

Table 3. Description of residence and Comorbidities of study participants.

Group	Co- morbidities						Total
	HTN	DM	CAD	Psychosis	Epilepsy	Mood disorders	
ADRD	3	2	1	5	2	2	52
VaD	12	5	2	1	3	1	41
Other	1	1	0	1	0	0	8
Total	16	8	3	7	5	3	101

Forty three (42.5%) participants have comorbid conditions. VaD group have more proportion for hypertension, coronary artery disease and diabetes mellitus as a comorbid illness (41.4%) as compared to other groups. Psychosis and epilepsy were next common conditions in participants.

Table 4. Correlation between dementia severity with education and residence on the basis of DSRS of participants belonging to ADRD group.

Severity	Education			P value	Residence		P value
	Illiterate or low	Middle	Higher		Rural	Urban	
Mild	4	3	2	0.644	5	4	0.410
Moderate	15	4	10		18	11	
Severe	8	1	5		8	6	
Total	27	8	17		31	21	

The mean DSRS score was the 26.37 in ADRD group. The p value between severity of dementia and education was 0.644 and between severity of dementia and place of residence was 0.410. Only 32.6% participants were educated above high school. Regarding the educational, a very high percentage of low education was observed in rural population in comparison to the urban. Participants were more from rural background (59.6%). Highest numbers of participants were in moderate dementia according DSRS.

Table 5. Correlation between dementia severity with education and residence on the basis of DSRS of participants belonging to VaD group.

Severity	Education			P value	Residence		P value
	Illiterate or low	Middle	Higher		Rural	Urban	
Mild	4	3	2	0.295	5	4	0.942
Moderate	8	3	7		13	5	
Severe	2	8	4		8	6	
Total	14	14	13		26	15	

The mean DSRS score in VaD group was 30.7. The p value between severity of dementia and education was 0.295 and between severity of dementia and place of residence was 0.942. In this group only 31.7% participants were educated above high school. The rural participants were more (63.4%) as compare to urban in VaD group. In VaD participant groups moderate dementia participants were also highest in number as in ADRD group.

DISCUSSION-

Female were only 35.6% in all participants, VaD group have comparatively more male patients while ADRD comparatively have more female patients. As life expectancy for women is higher than men and age is major risk factor for dementia, so incidence of dementia is higher in women [13,14]; whereas Edland et al 2002 showed no sex difference in incidence for dementia[15], Matthews et al 2016 showed increased incidences in men as compared to women[16].

We found more male participants in all three groups as compared to female the reason behind age and sex disparity between our study and other studies may be sociocultural[17].

As dementia is mostly burdensome in developing nations[18] having most of their population live in rural areas, in this study we tried to find is there any difference in rural and urban population in having dementia? Patients from rural background were less educated as compared to urban except this there is no other significant difference in dementia presentation in urban and rural population.

Comorbidities were significantly higher in dementia patients than in the population not diagnosed with dementia, more than 60% of dementia patients have one or more Comorbidities[19]. In our study the prevalence of common Comorbidities alone was the 42.5%. In most of studies prevalence rates of diabetes in dementia varied from 6% to 39%[20] in our study it was 7.9%. Diabetes mellitus, hypertension, and coronary artery diseases were significantly more prevalent in patients with vascular dementia than in those with ADRD and other dementia[21]. In our study also HTN, CAD and DM were constituted 46.3% of VaD group patients.

Some studies showed relationship between education and dementia, i.e. low education was associated with increased risk for dementia[22, 23]. Our study did not found any correlation between education and dementia (p value for ADRD 0.644 and VaD 0.295). Few studies also reported no association between education and dementia[24,25].

Many studies reported the association between living in rural place and risk of dementia[25,26], but our study did not found such results (p value for ADRD 0.410 and VaD 0.942) it may be due to small sample size.

CONCLUSION-

There growing need to raise the awareness of the dementia and its Sociodemographic attributes. In our study considerable differences in the prevalence of dementia in different Sociodemographic settings such as rural and urban population and their education level were found. The prevalence of Comorbidities with dementia is very high and Dementic patients have poorer access to health services due to their dependence. If any comorbid risk factor is present in patient it should to treated well to prevent future development of disease. Limitations of this study were small sample size, short duration of study. So there is a need of large sample size prospective studies to find better clinical and Sociodemog rap hic correlations in dementia.

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