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CORRELATION OF CLINICAL AND SOCIO-DEMOGRAPHIC PROFILE WITH PROGNOSIS OF GERIATRIC PATIENTS

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ABSTRACT

The geriatric population is rapidly increasing in India and need special attention on health care. A predication made by World Health Organization (WHO) states that about 75% of the estimated 1.2 billion people aged above 60 years will reside in developing countries by 2025. The prevalence of psychiatric illness is increasing worldwide. We conducted a study on 60 geriatric patients to evaluate their clinical and socio-demographic profile and its correlation with the prognosis of patients. In present study, Insomnia was the most common symptom observed followed by inability to work and depressed mood. Most of the care takers were able to provide 4-8 hrs support and the care provided by other members was found psychological (53%).

Introduction

The elderly population is rapidly increasing in Indian population and the health care required for this specific population needs an extra attention. A sharp increase in has been observed in the elderly population in India in recent years. That was estimated 8% in the year 2015 and can reach up to 19% in the year 2050. The elderly will constitute around 34 % of the total Indian population by the end of century. Southern states of India, Himachal Pradesh, Punjab, Odisha, and Maharashtra are on top position in terms of elderly aging population. (1) Previous studies have shown the prevalence of various psychiatric disorders in geriatric population in different settings using different methodology and diagnostic criteria. (2, 3). In our previous study, we evaluated the prevalence of various psychiatric illnesses and their association with age and gender. (4) In current study, we are concern with the clinical and socio-demographic profile of geriatric patients and its correlation with the prognosis of patients.

Material and methods

Present study included 60 geriatric patients aged 65 years and above attending geriatric out -patient clinic. This study was based on socio-economic status, occupation, education, religion, family structure and the area of patients they belong. This study also evaluates the prognosis of patients on the basis of care provided to them by their family members. A written consent was obtained by the patients or their family members. Patients were called for follow up to observe their prognosis. We conducted physical and mental state examination for all the patients included in the study. This examination included:

Structured Clinical Interview for DSM IV for axis I (SCID-I), Mini Mental State Examination (MMSE) and Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994)

Results:

Table 1: Past history of neuropsychiatric illness of patients in various diagnostic categories

Diagnostic category	Present (N %)		Absent (N%)	
Delirium, dementia, amnestic and other cognitive disorders	2	11.1	11	26.2
Substance related disorders	1	5.5	1	2.4
Schizophrenia and other related psychotic disorder	1	5.5	3	7.1
Mood disorders	11	61.1	22	52.4
Anxiety disorders	3	16.7	3	7.1
Sleep disorders	-	-	2	4.8
Total (60)	**18 (30%)**		**42(70%)**	

Table 2: Family history of neuropsychiatric illness of patients in various diagnostic categories

Diagnostic category	Present (N)	(%)	Absent (N)	(%)
Delirium, dementia, amnestic and other cognitive disorders	1	10	12	24
Substance related disorders	1	10	1	2
Schizophrenia and other related psychotic disorder	1	10	3	6
Mood disorders	4	9.8	3	15.8
Anxiety disorders	1	10	5	10
Sleep disorders	-	-	2	4
Total (60)	**10 (16.7%)**		**50 (83.3%)**	

Table 3: Domicile of patients in various diagnostic categories

Diagnostic category	Urban (N %)		Rural (N%)	
Delirium, dementia, amnestic and other cognitive disorders	7	17.9	6	28.6
Substance related disorders	1	2.6	1	4.8
Schizophrenia and other related psychotic disorder	3	7.6	1	4.8
Mood disorders	22	56.4	11	52.4
Anxiety disorders	4	10.3	2	9.5
Sleep disorders	2	5.1	-	-
Total (60)	**39 (65%)**		**21 (35%)**	

Table 4: Religion of patients in various diagnostic categories

Diagnostic category	Hindu (N%)		Muslim(N%)		Sikh (N%)	
Delirium, dementia, amnestic and other cognitive disorders	10	21.3	3	25	-	-
Substance related disorders	2	4.2	-	-	-	-
Schizophrenia and other related psychotic disorder	3	6.4	1	8.3	-	-
Mood disorders	26	55.3	6	25	-	-
Anxiety disorders	4	8.5	2	16.7	-	-
Sleep disorders	2	4.3	-	-	-	-
Total (60)	**47 (78.3)**		**12 (20%)**		**1 (1.7%)**	

Table 5: Marital status of patients in various diagnostic categories

Diagnostic category	Married (N %)	Widows/ Widowers(N%)	Others (N%)

Delirium, dementia, amnestic and other cognitive disorders	8	19	5	38.5	0	-
Substance related disorders	2	4.8	-	-	-	-
Schizophrenia and other related psychotic disorder	2	4.8	2	15.4	-	-
Mood disorders	22	52.4	6	46.1	5	10
Anxiety disorders	6	14.2	-	-	-	-
Sleep disorders	2	4.8	-	-	-	-
Total (60)	**42 (70%)**		**13 (21.7%)**		**5 (8.3%)**	

Table 6: Education of patients in various diagnostic categories

Diagnostic category	< Xth pass (N %)		≥Xth pass (N%)	
Delirium, dementia, amnestic and other cognitive disorders	7	22.6	6	20.7
Substance related disorders	2	6.4	-	-
Schizophrenia and other related psychotic disorder	3	9.7	1	3.4
Mood disorders	15	48.4	18	62
Anxiety disorders	3	9.7	3	10.3
Sleep disorders	1	3.2	1	3.4
Total (60)	**31 (51.7%)**		**29(48.3%)**	

Table 7: Occupation of patients in various diagnostic categories

Diagnostic category	Housewives (N)	(%)	Labourers (N)	(%)	Ex-servicemen (N)	(%)	Business men (N)	(%)
Delirium, dementia, amnestic and other cognitive disorders	2	22.2	4	17.4	7	26.9	-	-
Substance related disorders	-	-	2	8.7	-	-	-	-
Schizophrenia and other related psychotic disorder	2	21.2	-	-	1	3.8	1	33.3
Mood disorders	4	44.4	1.4	60.8	14	53.8	2	66.
Anxiety disorders	1	11.1	3	13	2	7.7	-	-
Sleep disorders	-	-	-	-	2	7.7	-	-
Total (60)	**9 (15%)**		**23 (68.3%)**		**26 (43.3%)**		**3 (15%)**	

Table 8: Family structure of patients in various diagnostic categories

Diagnostic category	Joint (N)	(%)	Nuclear (N)	(%)	Alone (N)	(%)
Delirium, dementia, amnestic and other cognitive disorders	9	25.7	1	7.2	3	27.2
Substance related disorders	2	5.7	-	-	-	-
Schizophrenia and other related psychotic disorder	2	5.7	2	14.3	-	-
Mood disorders	18	51.4	7	50	8	72.7
Anxiety disorders	3	8.6	3	21.4	-	-
Sleep disorders	1	2.9	17.2	-	-	-
Total (60)	**35 (58.3%)**		**14 (23.3%)**		**11 (18.3%)**	

Discussion

In present study, about one third patients were found with past history of neuropsychiatric illness including 61.1% patients of mood disorders (Table 1). Similarly, only one sixth (16.7%) of patients had a positive family history of neuropsychiatric illness (Table 2).

A similar community based epidemiological survey of dementia in rural Kerala, India, was conducted to identify the mental status of elderly people aged above 60 years. A total of 2067 people were screened with MMSE and CAMDEX. People with score 23 and below were evaluated by CAMDEX and diagnosis was made using DSM-III-R criteria for dementia. Sixty six cases of dementia were identified with a prevalence rate of 31.9 / 1000. 58% of dementia cases were diagnosed as vascular dementia and 41% satisfied the criteria for ICD-10 dementia in Alzheimer's disease involving more number of female populations. Smoking and hypertension were associated with vascular dementia while a family history of dementia was more likely in the Alzheimer's group. (5)

The present data indicates that 65% patients belong to urban areas and 35% patients were from rural areas (Table 3). The distribution of the sample according to religion indicated 78.3% Hindus and 20% Muslims. Only one patients from Sikh community with bipolar I disorder with most recent episode depression was observed in our study (Table 4). The relationship between marital status and different diagnostic categories revealed 70% patients were married and 21.7% were widow or widower. There was no statistically significant differences in mood disorder category between these groups (z=0.62, p =0.53). Out of five patients in other categories (single/separated), four were having depressive disorder (Table 5). This pattern was consistent with the finding of Blazer and Williams (1980). (6) The distribution of patients according to the education revealed 51.7% of patients had their education up to tenth class only. Most of the patients with lower education group belonged to the diagnostic category of delirium, dementia and amnestic and other cognitive disorders. But the differences between these groups were found statistically insignificant (z=0.62, p = 0.65). There was no statistically significant difference in mood disorders between these two groups (z=1.06, p=0.29) (Table 6). In present study, nearly half of the patients (43.5%) belonged to the retired servicemen. Besides this, there were 15 % housewives (including non working females), 38.5% labourers and three (5%) were engaged in business. Majority of patients (68.3%) belonged to lower income group (income <5000/month). There was no significant difference between the two groups in mood disorders category (z=0.86, p=0.39%) or any other diagnostic categories (z=0.76, p=0.44) (Table 7).

Another survey was carried out in people aged above 60 years at a semi urban area near Madurai, India. Overall prevalence of psychiatric morbidity was estimated 89/1000 population. 48.84% were found with physical morbidity, 57% of the psychiatric group with physical morbidity and 85% with sensory impairment. This finding indicated that lack of social integration rather than social isolation, and lack of occupation was significantly related to psychiatry morbidity. Depressive illness contributed to 67% of total psychiatric morbidity followed by organic brain syndrome (10%), schizophrenia (55), anxiety state (5%), alcoholism (8%) and possession state (5%). (7)

A field survey carried out near Chennai, India revealed that most old people lived with their spouse or some other relatives. Nearly 50% of males and 67% of females above the age of 60 had lost their spouses. Only 12 % of subjects were found living alone. Joint family system was common but there was a tendency for it to break down. Nearly 50% of aged people had some physical ailment and were in need of active health care out of the 183 people. 11 (6%) people were found with organic disorders and 27.6% people with functional disorders. Depression was commonest symptom among functional disorders. (8). A study to find prevalence and bio-socioeconomic factor was carried out in and around Agra, India. The study showed the age specific prevalence rate per thousand for patients aged 55 and over was 22.30 and commonest category of mental disorder was organic psychosis among this group. It was also observed that mental defect was more frequent among males. Mean age of onset was lower in males than females. Illiteracy, lower education, non earning status, joint family structure, addiction, short temperament, neurotic traits, special strains and severe anxiety and certain caste groups were more associated with higher prevalence of mental disease. (9)

Pattern of family structure among the patients in present study revealed that most of the elderly patients belonged to the joint family system. Only one fourth of patients belonged to the nuclear family. Surprisingly, 11 patients were found staying alone and 8 of them were found with depressive disorders (z=1.96, p<0.05). This was consistent with the finding of Vencoba rao et al. (10) Present data concluded that although joint family system is still prevalent in our society but loners also constitute a significant proportion (18.3%) (Table 8). The rating of patients on global assessment scale showed majority (58.4%) of the patients with moderately severe impairment in functioning. This could be because of inability of these patients to attend the hospital and approaching the neurologists or the physicians.

Majority of the patients (43.3%) were provided two caretakers. This could be well explained by the joint family system in which the sick person's role can be shared family members. Care given by the other members (other than main caretaker) was in the form of psychological support (53.1%). There was no caretaker for 11 patients. In most of the cases (63.3%) total time was given by the caretakers varied from 4-8 hrs. Among relatives, spouses were the caretakers in 38.8% cases followed by other groups 34.7% (including other relatives).The caretakers staying with the patients were most likely to give maximum time for care. Main motivating factor behind the care was a sense of respect given to the elderly patient in the majority of cases (42.9%).

The main difficulty experienced by caretaker in the majority of the cases was related with financial aspect. Only 18.4% caretakers were fully satisfied in the way they were caring for the patients whereas majority (73.5%) was partially satisfied. In regards to functional support provided by caretakers, 36.7% patients needed care in subjective areas of work difficulty like asking for food. 46.6% patients needed help in organizing things like arranging books, cloths or preparing food, 18.4% required support in walking and only 14.3% needed help in all activities of daily living. Most of the patients with dementia sought support in all activities of daily living while those belonging to mood disorders needed much less assistance. Most of the patients were having strong financial support from family. We can say that family care provided to most of patients was adequate. A strong bond between the family members is an important part of our culture that can be utilised in any intervention programme for better prognosis of patients.

Most frequent complaint reported by patients was insomnia (70%) including early, middle and terminal insomnia leading to inability to work, this results in considerable occupational and functional impairment. Depressed mood was another common complain supporting the finding that depressive symptoms are common in psychiatric illnesses which may be due to primary depressive disorder or other factors like schizophrenia or physical illness.

An association between the one month prevalence rates of mental disorders and social demographic characteristics was investigated for 18571 people by National Institute of Mental Health (NIMH) epidemiologic catchment area program in United States. Men were found to have a significantly higher rate of cognitive impairment than women after controlling for the effects of age, race or ethnicity, marital status and socioeconomic status. Marital status was one of the powerful correlates of mental disorder risk: the odds of separated or divorced people having any NIMH diagnostic interview scheduled disorder were twice that of married people after controlling for age, gender, race or ethnicity and socioeconomic status. The odds of those in the lowest socioeconomic status group having any diagnostic interview schedule disorder was about 2.5 times that those in the highest socioeconomic status group after controlling for age, gender, race or ethnicity and marital status. For all disorders except cognitive impairment, race or ethnicity did not remain statistically significant after controlling for age, gender, marital status and socioeconomic status. (11)

A retrospective study aimed to explore the socio-demographic and clinical profile of 265 patients aged above 60 years, attending the psychiatric services for one year in NIMHANS, India. Preliminaries data revealed that nearly three fourth of the patients were between 60-90 years of age with adequate family support. About two third patients were diagnosed with psychosis using ICD-9 criteria with common finding of non organic psychosis106 (43%), followed by organic psychosis in 55 patients (22%), neurosis in 42 patients (17%), alcohol related disorders in 17 patients (7%) and 15 patients (6%) in adjustment disorders and sleep disorders. The difference in the distribution of organic and non organic psychosis between the two senses was significant (p=0.01485); men had significantly more organic psychosis than women and the latter had more non organic psychosis than the former. It was found that about 70% of the patients in the sample had associated physical disorders. (12)

Conclusion

Most common symptom was insomnia followed by inability to work and depressed mood. Majority of patients had two care takers (43.3%). Most of the care takers were able to provide 4-8 hrs support. Care provided by other members was psychological (53%). 38% caretakers expressed financial difficulty in care provided. Majority of care takers were partially satisfied (73.5%) with the care provided whereas only 18.4% were fully satisfied.

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