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### Assessment of neuropsychiatric illnesses in older age group

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#### Abstract

**Background:** Among the neuropsychiatric disorders, dementia and major depression are reported to be the two leading contributors of morbidity in this group. The present study was conducted to assess neuropsychiatric illnesses in older age group.

**Materials and Methods:** 104 subjects age above 60 years of both genders were assessed for mood disorder-mania, organic mental disorders, psychosis and mood disorder-depression was recorded.

**Results:** Out of 104 subjects, males were 64 and females were 40. Common diagnosis was organic mental disorder in 54, alcohol dependence in 20, schizophrenia in 12, mood disorder in 9 and anxiety disorder in 7 cases. The difference was significant ( $P < 0.05$ ).

**Conclusion:** Most common neuropsychiatric illnesses was organic mental disorder.

**Keywords:** Neuropsychiatric illnesses, schizophrenia, mood disorder

#### Introduction

Latest census in India revealed that it is home to more than 76 million people aged 60 years and over. This age group currently constitutes 7.4% of the Indian population. The life expectancy of an average Indian has increased from 54 years in 1981 to 64.6 years by 2002<sup>[1]</sup>. This elderly population is likely to increase to 137 million by 2021. As the population of older people in the world is steadily growing, mental health conditions are becoming an important cause of morbidity and premature mortality in this age group<sup>[2]</sup>. Among the neuropsychiatric disorders, dementia and major depression are reported to be the two leading contributors of morbidity in this group. It is estimated that there are already about 1.5 million people affected by dementia in India and this number is likely to increase by 300% in the next four decades<sup>[3]</sup>. Physical distress caused by psychiatric medical problems can provoke changes in mood and behavior in people with Intellectual Disabilities (ID). Health problems identified as causing or worsening behavior problems in this population are various, ranging from ear infections, premenstrual pain, sleep disturbances, and allergies, to dental pain, seizures, and GI distress<sup>[4]</sup>. In behavioral terms, feeling ill, in pain or generally distressed because of a physical problem (i.e. constipation, dental pain, UTIs or urinary tract infections) may act as a "setting event" or "establishing operation,"<sup>[5]</sup>. The present study was conducted to assess neuropsychiatric illnesses in older age group.

#### Materials & Methods

The present study was conducted among 104 subjects age above 60 years of both genders who were diagnosed with some neuropsychiatric illnesses. All were well informed regarding the study and their written consent was obtained.

Demographic data such as name, age, gender etc. was recorded. Assessment of alcohol dependence with or without various complications, mood disorder-mania, organic mental disorders, and psychosis and mood disorder-depression was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

#### Results

Table 1: Distribution of subjects

Total- 104		
Gender	Males	Females
Number	64	40

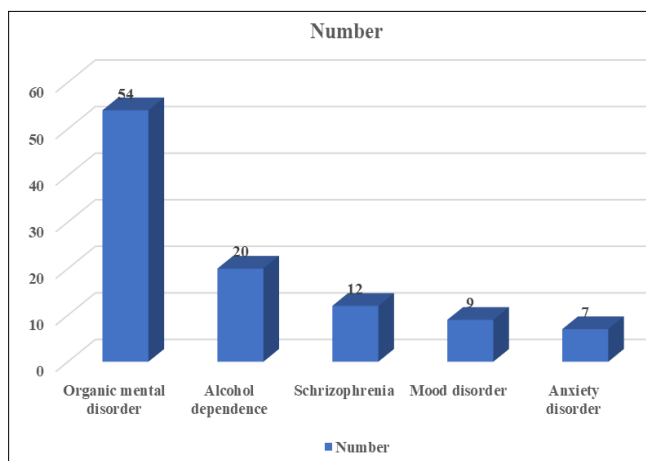
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Table I shows that out of 104 subjects, males were 64 and females were 40.

**Table 2:** Diagnosis of cases

Diagnosis	Number	P value
Organic mental disorder	54	0.02
Alcohol dependence	20	
Schizophrenia	12	
Mood disorder	9	
Anxiety disorder	7	

Table II, graph I shows that common diagnosis was organic mental disorder in 54, alcohol dependence in 20, schizophrenia in 12, mood disorder in 9 and anxiety disorder in 7 cases. The difference was significant ( $P < 0.05$ ).



**Graph 1:** Diagnosis of cases

## Discussion

A corollary to the current significant aging of the population is an increase in the number of patients with Alzheimer's disease and other forms of dementia [6]. All forms of dementia manifest not only as cognitive impairments, but also as mental and behavioral disturbances. Neuropsychiatric symptoms have been reported to occur at some point in 75% of patients with dementia [7]. Previously known as behavioral and psychological symptoms of dementia, neuropsychiatric symptoms include a broad range of psychological reactions, psychiatric symptoms, and behavioral disturbances [8]. They constitute a major reason for hospital admission are associated with a higher risk of death, and accelerate the cognitive decline. Neuropsychiatric symptoms of dementia are evaluated using standardized instruments such as the Neuropsychiatric Inventory (NPI) [9]. The present study was conducted to assess neuropsychiatric illnesses in older age group.

In present study, out of 104 subjects, males were 64 and females were 40. Aich *et al.* [10] in their study geriatric inpatients (138) formed only 3.73% of the total patient population (3698) admitted during the said period, which is in sharp contrast to 23-44% geriatric inpatients, the range that has been usually reported in the western literature. Common clinical diagnoses amongst male geriatric patients were alcohol dependence with or without various complications (27.7%), followed by mood disorder-mania (18.1%), organic mental disorders (18.1%), psychosis (16.9%), and mood disorder-depression (14.5%). Common

clinical diagnoses amongst geriatric females were mood disorder-depression (36.4%) and psychosis (25.5%). Comorbid physical illness was seen to be present at a very high percentage (61.4%) in geriatric male patient population than in female patients (40%). Alcohol dependence in male and depressive disorder in female stood out as distinctive illness in patients above 50 years of age (including both study and comparative groups). In sharp contrast to elderly comparison group's 14.9% cases of comorbid physical illness, geriatric study population had a staggering 52.9% cases of additional burden of physical illness diagnosis.

We found that common diagnosis was organic mental disorder in 54, alcohol dependence in 20, schizophrenia in 12, mood disorder in 9 and anxiety disorder in 7 cases. Meziere *et al.* [11] studied patients aged 75 years or older who had been admitted to four geriatric rehabilitation units in the Paris area. The twelve Neuropsychiatric Inventory items and four neuropsychiatric subsyndromes defined by the European Alzheimer's Disease Consortium were evaluated. Results: Of the 194 patients, 149 (76.8%) had dementia, and 154 (79.4%) had exhibited at least one neuropsychiatric symptom during the past week. Agitation was the most common neuropsychiatric symptom in the group with dementia (36.9%) and depression in the group without dementia (35.6%). The dementia group had significantly higher prevalences of hyperactivity ( $p < 0.001$ ) and delusions ( $p = 0.01$ ) than the non-dementia group. In the dementia group, severity of cognitive impairment was associated with hyperactivity ( $p = 0.01$ ) and psychosis ( $p = 0.02$ ).

Fernandez *et al.* [12] found that prevalence of neuropsychiatric symptoms in geriatric rehabilitation patients was about 80%. The most common neuropsychiatric symptoms were agitation in patients with dementia (36.9%) and depression in those without dementia (35.6%). Inpatients with dementia constituted the majority of the study population (76.8%) and had significantly higher prevalences of hyperactivity and delusions compared to those without dementia. In patients with dementia, severe cognitive impairment was associated with hyperactivity and psychosis. Pain was associated with affective symptoms and psychosis, whereas acute physical illness was associated with apathy in patients with dementia.

Srivastava *et al.* [13] assessed the prevalence of various psychiatric disorders in 50 patients with epilepsy and 50 patients of epilepsy without any evidence of NCC. Sixty eight percent of the patients with NCC suffered from a psychiatric disorder, as compared to 44% of those without NCC ( $P=0.02$ ). Major depression and mixed anxiety depression were the two most common diagnoses. None of the patients was found to suffer from a psychotic disorder. The most frequent site of brain lesion of NCC was the parietal lobe, followed by frontal lobes and disseminated lesions. Left sided lesions were associated with greater psychiatric morbidity. Focal seizures with or without secondary generalizations were present more frequently in patients with NCC whereas primary generalized seizures were more common in patients with idiopathic epilepsy ( $P=0.05$ ).

## Conclusion

Authors found that most common neuropsychiatric illness was organic mental disorder.

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