A Retrospective Review of Elderly Patients Admitted in Psychiatry Department of a Tertiary Care Center Over 3 Years

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Abstract

Introduction: Psychiatric morbidity is high in the elderly population. Despite this, literature regarding inpatient study in elderly is lacking in context to world, including Nepal. This study aimed to study the socio-demographic variables and patterns of psychiatric illnesses in elderly patients admitted in a psychiatry ward of a tertiary hospital.

Methods: This was a retrospective study of all elderly patients aged 60 years and above admitted in psychiatry ward over three years period between 2067 Baisakh to 2069 Chiatra (2010 April to 2013 April). Data were collected by reviewing in-patient admission charts from medical records. Descriptive analysis was done by using SPSS version 20; Chicago, IL; and results were expressed as percentages.

Results: There were a total of 881 patients admitted in the psychiatry ward during the study period, among which 34 were elderly aged above 60 years. Females slightly predominated in our study. Most of the geriatric sample consisted of Brahmins and all were Hindus. More than 50% of the patients were from central developmental region. The most common diagnosis made was depression followed by schizophrenia Persistent Delusional Disorder (PDD) and organic conditions. Majority of the patients had hospital stay between 2-3 weeks; and all patients were discharged home without mortality.

Conclusion: We were able to show the socio-demographic characteristics of elderly patients admitted in a psychiatry ward of a tertiary care center, which will help add insight of psychiatry issues in elderly in Nepalese context.

Keywords: Elderly, Psychiatric illnesses, Inpatient study

Introduction

Aging of the population is a global phenomenon. During the first half of the twentieth century, the main factor responsible for aging was a progressive and dramatic decrease in perinatal and infant mortality due to better treatment of infections, improved nutrition, and better prenatal and postnatal care and in the latter half of the twentieth century factors included decline in mortality from pneumonia, heart disease, and other chronic diseases. Two- thirds of all the people in the entire history of the world who have reached the age of 65 years are alive today. The combined effect of falling birth rates and rising life expectancy has been, and will continue to be, a dramatic shift in the age structure. According to United Nations projections, the ratio of people older than age 60 years to children younger than 15 years in more developed regions of the world will change from 1:1 today to 2:1 in 2050. The same ratio in less developed regions will change from 1:3.5 today to 1:1 in 2050.[1]

The age of 60 years as a cut-off point is consistently employed in third world countries to define the elderly. World Health Organization (WHO) defines senior citizens as people 60 years and above. The Senior Citizens Act 2063, Nepal also defines the senior citizens as "people who are 60 years and above". During the years 1991-2001, the annual elderly population growth rate was 3.39 percent, higher than the annual population growth rate of 2.3 percent. Furthermore, Nepal is concurrently attempting to introduce population control programs resulting in a lower birth rate which will subsequently result in an even greater proportion of the elderly. There were 1.5 million in 2001 and 2.1 million in 2011, elderly inhabitants, which constitute 6.5% and 8.1% of the total population in the country increasing from 5% in 1951 to 5.8% in 1991 indicating that there has been a sharp increase in the number of elderly persons between 2001 and 2011. This indicates the starting of the ageing dynamics in Nepal, which will have adverse effects on Nepalese social structure and economy in the long run.[2,3]

Geriatric psychiatry is a distinct subspecialty of psychiatry. Compared to young people, elderly have much greater biological heterogeneity, more physical and cognitive comorbidity, and higher risk of most side effects of medications, including drug- drug interactions, along with aging- related socioeconomic stressors such as retirement, loss of loved ones, social network, previous status in society and financial difficulties. The presence of different organic factors, such as brain atrophy, cerebrovascular disease, underactivity of serotonergic transmission, hypersecretion of cortisol, and low levels of testosterone, also increases.

The common notion that psychiatric disorders are rare among elderly individuals is just plain wrong and is based on studies such as the Epidemiologic Catchment Area (ECA) study conducted by the National Institute of Mental Health in the early 1980s. According to the ECA study, 13% of people older than age 65 years would meet criteria for psychiatric disorders other than dementia and a total of nearly 20% of population older than age 65 years would have diagnosable psychopathological symptoms (excluding people with delirium or mental disorders secondary to general medical condition).[1]The prevalence of mental disorders is high among the elderly, with a prevalence of almost 20% in people without dementia aged 65 years and older. Sixty percent of patients aged over 65 years in general hospital beds have, or will develop, a mental health problem, including dementia, delirium and depression.[4]

Female sex, being illiterate, having low income, adverse life events, poor physical health, disability, institutionalization, medical drugs, decreased social network and support, and cerebral organic factors, such as brain atrophy and cerebrovascular disease were the most consistent risk factors associated with psychiatric morbidity and especially depression. In addition, previous psychiatric history, family history of depression, low education, personality factors, smoking, and alcohol consumption have been associated with depression in the elderly.[5]

Methods

This retrospective review was conducted in the Department of Psychiatry, Tribhuvan University Teaching Hospital. All patients of age 60 years and above admitted in Psychiatry ward over three years from 2067 Baisakh to 2069 Chiatra (2010 April to 2013 April) were included in the study. The first step was obtaining inpatient number of all patients above sixty years of age admitted in psychiatry ward over three years from the admission- discharge patient chart maintained in the psychiatry ward. Inpatient number is a distinct number allocated to every new patient during admission in our hospital. In cases of repeated admissions of a single patient over time, the same number is allocated in every visit. Charts of the patients were obtained from the medical record section. Diagnoses of the patients were made as per the ICD- 10 diagnostic criteria and the final diagnoses of the patients were made at the time of discharge by the consultant psychiatrists. Socio-demographic and clinical variables for each patient was collected and analyzed with descriptive statistics.

Results

There were a total of 881 patients admitted during the three years period. Thirty- four of these patients were in the geriatric age group (>60 years) accounting to 3.9% of all patients. Table 1 shows the demographic and clinical correlates of these patients.

Table 1 Demographic and clinical variables of overall patients (n=34)

Variables	n (%)
Sex	
Male	16 (47.1)
Female	18 (52.9)
Religion	
Hindu	34 (100)
Caste	
Brahmin	15 (44.1)
Chhetri	12 (35.3)
Newar	3 (8.8)
Mongolian	2 (5.9)
Dalit	1 (2.9)
Others	1 (2.9)
Address	
Eastern region	4 (11.8)
Central region	20 (58.8)
Western region	7 (20.6)
Mid-western	2 (5.9)
Far-western	1 (2.9)
Year of admission	
2067	10 (29.4)
2068	14 (41.2)
2069	10 (29.4)
Diagnosis	
Organic(Delirium / dementia)	7 (20.6)
Substance related (Induced and withdrawal)	1 (2.9)
Schizophrenia/PDD	7 (20.6)
ATPD	2 (5.9)
BPAD	5 (14.7)
Depression	10 (29.4)
Others	2 (5.9)
Duration of stay	
<7 days	2 (5.9)
7-14 days	22 (64.7)
14-21 days	9 (26.5)
21-28 days	1 (2.9)
Outcome	
Mortality	0 (0)
Discharged	100 (100%)

Sex distribution was almost similar among males and females. All patients were Hindus. Majority of patients were from Brahmin community, followed by Chhetris. Most (58%) were from central developmental region, followed by western region (20.6%), eastern region (11.8%), mid-western region (5.9%) and only 2.9% from far-western region. Ten patients each were admitted during the years 2067 and 2069 while there were fourteen patients admitted in the year 2068. Broad diagnostic subgroup of patients according to ICD-10 diagnostic system revealed that maximum number of patients (30%) had the diagnosis of depression. This was followed by 20% of patients meeting the diagnosis of schizophrenia/ PDD and organic conditions (delirium, dementia) each. 14% of the patients were diagnosed with bipolar affective disorders. One patient was diagnosed with substance- related disorder while two patients were having other diagnoses. Duration of hospitalization for most of the patients (65%) was between one to two weeks followed by two to three weeks for 26% of patients. Around 6% of the patients had hospital stay of less than one week while there was only one patient who stayed for a period between three to four weeks (2.9%). With respect to the outcomes, all the patients were discharged home with no mortality.

Discussion

Elderly population (>60 years) constituted only 3.9% of all the patients admitted in psychiatry ward admitted over the study period. This finding correlates with the result from inpatient study of geropsychiatric patients conducted in Universal College of Medical Sciences, Bhairahawa where the prevalence was 3.7%.[6] However, hospital- based outpatient studies from India report a 3-7% prevalence of psychiatric disorders in their elderly population.

Depression is often reported as the most prevalent mental health problem of the elderly and one of the most frequent of their complaints in primary care. Even if the prevalence of depression does not increase in the elderly, the prevalence of depressive symptoms is constantly reported to increase with age. This may reflect that elderly people with depression may exhibit less symptoms than younger people with depression. The incidence of depression has been reported to increase or be unaffected by age.[5] The most common diagnosis in our elderly population is depression seen in 29.6% followed by organic conditions, namely delirium and dementia and persistent delusional disorder and schizophrenia each accounting to 20.6%. This is in accordance with the in-patient study of geropsychiatric patients conducted in Universal College of Medical Sciences where the most common diagnosis overall was depression (23.2%) followed by psychoses (20.3%). The prevalence of depression in our geriatric population however is not consistent with prevalence

reports from other studies and is due to the fact that these are not in- patient studies making comparisons difficult. Depression is one of the most prevalent psychiatric conditions in later life.[7] The reported prevalence rates vary enormously from 0.4% major depression in Japan to 35% all depressive syndromes in Hongkong.8 One to 3% prevalence of major depression has been noted in elderly and this prevalence increases to the range of 8% to 16% when depressive symptoms are taken into account and self-reported depressive symptoms as high as 39.86%.[9-12] The prevalence of geriatric depression from medical ward in Nepal according to Geriatric Depression Scale (GDS) is 53.2% which includes 34.2% of mild and 19% of severe depression.[2]

Studies from primary care clinics have shown further higher prevalence of major depression ranging from 5 to 10%, depressive syndrome ranging from 10 to 20% with depressive symptoms as high as 34% in primary care clinics. Depression in old people has been associated with increased burden of primary care services, with patients making more visits to their physicians than non-depressed subjects. [9] The prognosis of these depressive states is poor. Moreover, studies of depressed adults indicate that those with depressive symptoms, with or without depressive disorder, have poorer functioning, comparable to others and worse than that of people with chronic medical conditions such as heart and lung disease, arthritis, hypertension, and diabetes. In addition to poor functioning, depression increases the perception of poor health, the utilization of medical services, and health care costs.[7,9,10,13,14]

Up to 13% of the elderly population is reported to suffer from dementia. Furthermore, it cannot be denied that dementia is one of the most burdensome diseases of the elderly.[13]

Psychotic symptoms and disorders, such as schizophrenia, are supposed to be rare in the elderly without dementia. Population studies report that the prevalence of self-reported psychotic symptoms in the elderly without dementia range from 1.7% to 4.2% with one study reporting one- year prevalence rate of 0.71% of all schizophrenia spectrum disorders in individuals aged 60 years and older.[5,15] Psychosis and psychotic symptoms in elderly populations have been associated with somatic disorders, for example, hypothyroidism, cerebral tumors, and cardiovascular and cerebrovascular disease. Furthermore, drugs, such as anticholinergics, antiparkinsonians, steroids and beta-blockers, as well as alcohol and benzodiazepine withdrawal, may produce psychotic symptoms in the elderly.[4]

Geriatric anxiety disorders have received less attention perhaps because of existing opinion that anxiety becomes rarer with older age. Recent research suggests that anxiety disorders may be as common, if not more common, as depression in the elderly. Epidemiologic data support this view, finding lower rates of anxiety disorders in community dwelling elderly populations than in similar younger age populations and reporting of low rates of panic disorder and social phobia in some studies.[8] In our study, no anxiety cases were seen.

The third common diagnosis in the study by Aich et al.[6] was alcohol dependence syndrome while in our study only one patient (2.9%) was diagnosed as a case of alcohol dependence syndrome. This is due to the fact that we have a separate unit for patients with substance use disorders, deaddiction ward where almost all patients with substance use disorder diagnoses are admitted. We have included only patients admitted in psychiatry unit leading to low rates of alcohol dependence in this study.

Females slightly predominated in our study sample (52.9%).Twice as many women as men are affected.[16] All the patients were Hindu by religion and most of them were Brahmins (44.1%). This is due to the fact that the major religion in Nepal is Hinduism and ethnicity-wise also, Brahmins constitute the major chunk of the population. More than half(58.8%) of these patients belonged to the central developmental region owing to the fact that Teaching hospital is in Kathmandu, central developmental region and is the tertiary referral center for patients throughout the country.

Around two- thirds of the patients had their hospital stay duration between one and two weeks. We could not find any study examining the duration of stay in elderly sample though one study from an inpatient psychiatry unit from India concluded the mean hospital stay to be 29.39 ± 20.43 days and that the majority (60%) stayed for less than 4 weeks.[17] One inpatient study from Nepal showed that more than half (56.4%) had stayed for 0-14 days.[18]

Conclusions

Geriatric psychiatry has not received much attention in our part but psychiatric morbidity is quite high in this population. The most common psychiatric illness is depression. We need to strengthen facilities in this age group and focus on researches so that we can work for the unmet needs in this age group.

Conflict of interest: None declared.

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