Study of depression among geriatric population in Nepal

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ABSTRACT

Depression is one of the commonest psychiatric disorders among the elderly patients attending the outpatient department of the tertiary care hospital. The consequence of unrecognized and untreated depression in the elderly population may include excessive use of health care services, decreased treatment compliance and increased morbidity and mortality related to underlying medical illness and from suicide. The aim of the study is to estimate the prevalence of depression according to Geriatric Depression Scale (GDS) and to find out the association of GDS with ICD-10 Diagnostic Criteria for Research (ICD-10 DCR) among older adults in the Nepalese population. A study group of 100 elderly patients aged 65 years and above were randomly selected from the psychiatry, medicine and general practice outpatient departments of Tribhuvan University Teaching Hospital, Nepal. MMSE scale is administered and the patients scoring more then 24 were administered the GDS and clinical diagnosis was made according to ICD-10 DCR. 53.2% of the samples were found to experience depressive illness according to GDS which includes 34.2% of mild and 19% of severe depression. 83.3% of the patients diagnose with probable depression with GDS were also diagnose clinically with ICD-10 DCR (p<0.001). This study concludes that significant number of elderly patients attending OPD of tertiary care hospital suffers from depression and GDS is a reliable tool to screen depression in the Nepalese patients.

Keywords: depression, Geriatric Depression Scale, ICD-10 DCR.

INTRODUCTION

The rapidly increasing growth of elderly people in developing countries possesses a serious challenge to available mental health services.[1] This growth in the elderly population inevitably leads to an increase in age – related diseases, such as depression and serious constraints on the quality of life among elderly individuals.[2]

The Geriatric Depression Scale[3] (GDS) is suitable as a screening test for depressive symptoms in the elderly. It is a brief questionnaire in which participants are asked to respond to the 30 questions by answering yes or no in reference to how they felt on the day of administration. Scores of 0 - 9 are considered normal, 10 - 19 indicate mild depression and 20 - 30 indicate severe depression. It is designed to identify and assess depression in geriatric patients. It is simple to administer and does not require the skills of a trained interviewer. It is designed to avoid questions concerning somatic symptoms and functions, which in older patients might be accounted for by physical disorders (e.g. sleep disturbance or weight loss). For the assessment of depression in older people, it is the scale against which others are rated.

Depression is a common disorder of later life with high prevalence rates found in studies of hospitalized inpatients, ranging from 10 to 45.0% with an average of about 15.0%.[4,5] There is also evidence that the diagnosis is frequently missed by hospital physicians, in one study only 8.7% of depressed patients were identified by junior doctors.[4] Depression is a common cause of disability in the elderly. Among its consequences are reduced life satisfaction and quality, social deprivation, loneliness, increased use of health and home care services, cognitive decline, impairments in activities of daily living, suicide, and increased nonsuicide mortality.[6]

There have been few studies in the geriatric medical outpatient setting. The only two of note in recent years were in Veterans Administration hospitals in America predominantly of male patients.[7,8] These studies gave prevalence rates of 29.0% and 38.0%, respectively.

An elderly patient suffering from depression often has a combination of psychological, physical and social needs. These rapidly increasing growths of elderly people in Nepal possess a serious challenge to the overall available health services. The purpose of this study was to ascertain the prevalence of depression in patients attending an outpatient clinic using GDS. The opportunity was also taken to compare GDS with the clinical diagnosis by ICD-10 Diagnostic Criteria for Research (ICD-10 DCR).[9]

MATERIALS AND METHODS

Sample is comprised of the patient's aged 65 year and above attending the Psychiatry, Medicine and General Practice Out-Patient Departments of Tribhuvan University Teaching Hospital, Nepal. Psychiatry, medicine and general practice OPD's were selected for the study because depressed patients saw their physicians more frequently as outpatients there. Also, depression in later life is known to be accompanied by an increase in somatic symptoms and hypochondriacal complaints and thus more likely to visit this facility. This is a cross-sectional type of type.

The verbal consent was taken from the patients or patient's relatives. The consent was taken from the relatives of the patients if there is suspicion of cognitive decline or if the patient is unable to give the consent. The detailed history is taken from the patient and an informant. The patients were selected for screening after assessment of cognitive ability using the mini-mental state examination (MMSE),[10] a score of above 24 were administered Geriatric Depression Scale (GDS) (30 items). The diagnosis is made according to the ICD-10 Classification of Mental and Behavioral Disorders - Diagnostic Criteria for Research.[9]

RESULTS

Out of 100 elderly patients, 58 cases (58.0%) have attended the psychiatry OPD whereas 42 cases (42.0%) attended in the medicine and general practice OPD.

The Table-1 shows the distribution of respondents on the basis of Mini-Mental State Examination (MMSE) scores. Seventy nine patients (79.0%) recorded MMSE score more then 24. Five numbers of cases had MMSE score less then 24 (5.0%) and 16 patients (16.0%) were presented with stupor like state and with grossly disturbed and violent behaviors, where MMSE could not be done.

The Table-2 shows the distribution of respondents on the basis of GDS scores. 42 cases out of 79 cases (53.2%) were found to be depressed according to GDS scale. The percentage of mild and severe depression is 34.1 (27/79) and 19 (15/79) respectively. Only 79 cases was administered the GDS because remaining cases were presented either with stupor like state, with grossly disturbed and violent behaviors or they had scored MMSE of less then 24.

The Table-3 shows the relationship between GDS and ICD-10 DCR. The present study shows that 83.3% of the cases who were depressed according to GDS were also depressed according to ICD-10 DCR. The data also shows that there is a statistically significant association between the diagnoses of depression between GDS and ICD-10 DCR ($p<0.001$).

DISCUSSION

Depression is often overlooked as a clinical diagnosis in older adults because it is assumed to be normal response to ageing, physical losses, or other life events. However, medical intervention for depression is appropriate in this. The underdiagnosis and undertreatment of depression among the elderly population represent a serious public health problem. The depression in late life is particularly costly because of the excess disability that it causes and its deleterious interaction with physical health. As depression in seniors is often more difficult to recognize than in younger individuals and seniors are less likely to spontaneously describe it, clinicians must be more proactive in the detection of depression symptoms. Studies have suggested that consequences of unrecognized and untreated depression in seniors may include excessive use of health care services, increased length of stay during hospitalization, decreased treatment compliance and increased morbidity and mortality, related to underlying medical illness and from suicide.

This type of study is also important to convince the medical personnel of the importance of diagnosis and treatment of depression and to keep high degree of index of suspicion while dealing with the elderly population because depression in the elderly population manifest mainly with the somatic symptoms and the patients visit the non-psychiatry OPD's in order to relieve their symptoms, particularly in Nepal. However, not many studies have been reported from this part of the world.

However, only 100 patients were recruited into the study and cases did not represent a true sample of the population. The data used for this study are cross-sectional. A cross-sectional study is biased due to there over representing chronic depression and also includes the known cases of depressive episodes. These studies at best reflect the pattern of hospital utilization, which is motivated by a variety of factors.

The problem of defining clinical depression and the absence of any depression rating scale that can be considered a `gold standard' has recently been discussed,[11] added to which a variety of clinical types of depression are becoming recognized including mild persistent depression (dysthymia)[12] and recurrent brief depression.[13]

With elderly patients there are added problems in that somatic symptoms of depression can be confused with symptoms of physical desease, and psycho-social factors often have an influence. The psychiatric interview therefore remains the most acceptable means of defining whether a subject is clinically depressed.

The screening tests have been evaluated for use with elderly subjects to identify probable depression is GDS. It is simple to administer and relatively free of somatic symptoms. Our study examined the prevalence of probable depression in elderly outpatients attending the tertiary care hospital. Little work has been published relating to this subject. The finding of a prevalence of 53.2% of probable depression on GDS, with 83.3% of the probable depression patients subsequently being confirmed as clinical depression by ICD-10 DCR (p<0.001). The percentage of mild and severe depression is 34.2 (27/79) and 19 (15/79) respectively. The scale tends to focus on the psychological symptoms and exclude somatic symptoms, which is predominant in the elderly population because of frequent co morbidity with the physical illness.

This compares with the findings of 29.0% and 38.0% of probable depression in the Veterans Administration studies,[7,8] but their subjects were a very select group. These various studies are not exactly comparable in the criteria used to define depression or the selection of samples. We have excluded below 24 in the MMSE as the cut-off point for inclusion in our study. So, the cases of dementia and delirium were excluded from the present work which may explain the higher prevalence noted in the present study.

Comparison of case-finding in our study using GDS and ICD-10 DCR showed that agreement between the two high and this has been recorded elsewhere.[14] The GDS has been recommended as a standard method for screening elderly subjects on grounds of more extensive use.[15]

The present finding suggests that substantial proportion of elderly subjects attending the psychiatry, medicine and general practice outpatient department of the tertiary care hospital of Nepal suffers from depressive disorder. In this study, the prevalence of depressive disorder is found to be about 53.2 percents by GDS and there is significant association between the diagnosis of depression by GDS and ICD-10 DCR in the Nepalese patients. So, the GDS can be use effectively in screening older Nepalese adults with depression. The higher prevalence of depression necessitates greater awareness among physician and early intervention since it has deleterious interaction with physical health. The future prospective studies will need to sort out the debatable issues e.g., whether depression leads to greater health service use or vice versa.

REFERENCES

1. United Nations Conference Report. Issue related to ageing in the twenty-first century; UNFPA; 1994: 5-8.
2. Desjarlais R, Eisenberg L, Good B *et al*. World Mental Health: Problems and Priorities in low Income Countries. Oxford University Press. New York, 1995.
3. Yesavage J, Brink T, Rose T *et al*. Development and validation of a geriatric depression screening scale. *J Psychiatr Res* 1983; 17: 37-49.
4. Finch EJL, Ramsay R, Katona CLE. Depression and physical illness in the elderly. *Clin Geriatr Med* 1992; 8: 257-87.
5. Koenig HG, Meador KG, Cohen Hj, Blazer DG. Depression in elderly hospitalised patients with medical illness. *Arch Intern Med* 1988; 148; 1929-36.
6. Palsson S & Skoog I. The epidemiology of affective disorders in the elderly: a review. *Int Clin Psychopharmacol* 1997; 12 (suppl 7): S3-S13.
7. Norris JT, Gallagher D, Wilson A, Winograd CH. Assessment of depression in geriatric medical outpatients: the validity of two screening measures. *J Amer Geriatr Soc* 1987; 35: 989-95.
8. Okimoto JT, Barnes RF, Veith RC. Screening for depression in geriatric medical patients. *Amer J Psychiatr* 1982; 139: 6-9.
9. World Health Organization. The ICD-10 Classification of Mental and Behavioral disorders (Tenth Revision): Diagnostic Criteria for Research; Geneva, 1992.
10. Folstein M, Folstein S, McHugh P. Mini-Mental State. A practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res* 1975; 12: 189-98.
11. Snaith P. What do depression rating scales measure? *Brit J Psychiatr* 1993; 163: 293-8.

12. Frances A. (Moderator) Recurrent brief depression, dysthymia and melancholia [Workshop]. *Int'l Clin Psychopharmacol* 1993; 7: 197-200.
13. Angst J, Merikangas K, Scheidegger P, Wicki W. Recurrent brief depression: a new sub-type of affective disorder. *J Affect Disord* 1990; 19: 87-98.
14. McCrea D, Arnold E, Marchevsky D, Kaufman BM. The prevalence of depression in geriatric medical outpatients. *Age Ageing* 1994; 23: 465-7.
15. Standardised assessment scales for elderly people. Report of Joint Workshops of the Research Unit of the Royal College of Physicians and the British Geriatrics Society. Royal College of Physicians of London, 1992; 13-14.

Table-1: Shows the distribution of respondents on the basis of Mini-Mental State Examination (MMSE) scores. (n=100)

MMSE score	n	%
>24	79	79.0
<24	5	5.0
Could not be done	16	16.0
Total	100	100.0

Table-2: Shows the distribution of respondents on the basis of Geriatric Depression Scale (GDS) scores. (n=79)

GDS Score	n	%
Normal	37	46.8
Mild	27	34.1
Severe	15	19.0
Total	79	100.0

Table-3: Shows the relationship between Geriatric Depression Scale (GDS) and ICD-10 DCR. (n = 79)

GDS	ICD-10 DCR		Total	p value
	Depression n (%)	No depression n (%)	n (%)	
Depression	35 (83.3)	7 (16.6)	42 (100.0)	
No depression	6 (16.2)	31 (83.7)	37 (100.0)	<0.001
Total	41 (51.9)	38 (48.1)	79 (100.0)	