Screening for Depression in the Elderly: Outcome of a Hospital Based Study in Uyo, Nigeria

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Abstract
Background:By the year 2020, depression will be the second major cause of disability-adjusted life years lost as reported by the World Health Organization. Although advancing age is a physiologic process, the co-morbidities of diseases frequently seen in elderly individuals significantly affect their quality of life. One of such diseases is depression. Depression is a treatable medical condition, not a normal part of ageing.
Aim and Objective: The aim of this study was to determine the proportion of depression among elderly personsattending the General Out- patient Clinics of the University of Uyo Teaching Hospital using a geriatric depression screening instrument.
Materials and Methods: The study was a cross-sectional descriptive study. Three hundred and ten elderly persons attending the General Out- patient Clinics of the University of Uyo Teaching Hospital for medical conditions between July and September, 2014, who met the inclusion criteria, were consecutively recruited. Details of sociodemograpic information were taken and respondents were also screened for depression using the Geriatric Depression Scale. Data analysis was done using the Statistical Package for Social Sciences (SPSS) version 17.0 and the level of statistical significance was set at p< 0.05.
Results: A total number of three hundred and ten respondents were recruited for the study. One hundred and seventy-seven (57.1%) were females and one hundred and thirty-three (42.9%) were males. The female to male ratio was 1.3:1. The age range of respondents were 60 and 90 years and the mean age (±SD) of the study subjects was 67.4 (± 6.6) years. From the study, 140 subjects (45.2%) were depressed and of these, 127(41.1%) had mild to moderate depression while 13(4.2%) had severe depression. The proportion of depression was observed to be higher in females (59.3%).
Conclusion: This study showed that the proportion of elderly depression is high. Depression still remains an important clinical issue in these groups of persons. Thus, a review of the elderly patients in our clinics should always include an assessment/evaluation for depression.
Keywords:SCREENING, DEPRESSION, ELDERLY, HOSPITAL.

I.   Introduction

The biological and psychological changes caused by ageing appear slowly in years or decades, therefore, there is no specific age limit at which people can be accepted as elderly. However, social and economic factors have necessitated determining the lower limit of elderliness.The World Health Organization (WHO) determines elderliness as the reduction in the competency to accommodate environmental factors and accepts 65 years of age as the lower elderliness limit, though they accept 60 years in some conditions, but the United Nations(UN) agreed cut off is 60 years and over.[1]As demographic transition is occurring very rapidly in both developing and developed countries, there is an increasing number of elderly people.[2]These elderly persons are vulnerable to diseases and areexposed to risk factors that may culminate in depression.[3]Depression is an affective illness characterized by symptoms such as disturbance in mood, cognition and inability to perform physical and mental functions with extensive implications for the patients and their family.[4]Evidence has shown that depression is one of the commonest psychological disorder often reported in the elderly worldwide and that the severity of these symptoms could be devastating and may contribute to increasing morbidity, high rates of mortality and poor quality of life.[4]It is projected that depression would be the second leading cause of disability by 2020.[5] Although depression is one of the commonest psychiatric disorders in the elderly, it is commonly misdiagnosed and undertreated. Reasons for misdiagnosis and under-treatment have been attributable to busy clinics and limited time for psychiatric evaluation, poor knowledge of common mental symptoms and syndromes, prominence of physical symptoms and the misconception that depressive symptoms are part of

ageing rather than a treatable condition.[6] The resultant effect of non-recognition and treatment of this common mental disorder is the increase in the burden of care and dependence on others.[7]

Screening is examination or testing of a group of individuals to separate those who are well from those who have an undiagnosed disease or defect, or who are at high risk. Screening interventions are designed to identify diseases in the community early, thus enabling earlier intervention and management, in the hope to reduce mortality and suffering from a disease.

A number of screening tools are available to help physicians identify elderly patients most likely to be depressed, however, the two most widely used efficient and effective tools for this purpose are the Geriatric Depression Scale (GDS) and the Patient Health Questionnaire-(PHQ-9).[8, 9]The GDS, used in this study, is a 30-item self-report assessment developed by Yesavage et al that has demonstrated reliability and validity when compared to other diagnostic criteria.[8]The PHQ-is a nine-item depression scale that consists of two components; an assessment of impairment to make a tentative diagnosis and the derivation of a severity score to help select and monitor treatment.[9]Screening for depression in primary care settings will improve recognition, treatment and outcomes of depressive disorders especially in these groups of persons.

The objective of this study was to determine the proportion of depressionin elderly persons attending the General Outpatient Clinics of theUniversity of Uyo Teaching Hospital, Uyo, South-South Nigeria using a geriatric depression screening instrument.

II. Methodology

This study was carried out at the General Out-patient Clinics of the University of Uyo Teaching Hospital (UUTH), Uyo in AkwaIbom State, Nigeria. The hospital is a tertiary health institution located inUyo, Akwa -Ibom State, South-South, Nigeria. It is a 400- bed hospital that offers services to indigenes of Akwa-Ibom State and neighbouring states of Cross River, Abia and Rivers. The study was a cross-sectional descriptive study designed to determine the proportion of depression in elderly persons who presented for medical treatment at the general out-patient clinics of the University of Uyo Teaching Hospital.A total number of 310 elderly patients from 60 years and above who presented at the general out-patient clinics of the University of Uyo Teaching Hospital for medical problems or illnesses with no past or present history of psychiatric illness and who gave consent were included in the study. Patients who were on medications for psychiatric illnesses andwho were critically ill patients were not included in the study.All eligible consenting elderly persons seen within the study period were consecutively recruited until the desired sample size was obtained. All respondents who met the inclusion criteria were recruited daily from Monday to Friday after the morning sorting routine. Information was given to each respondent in English or the Local language (Ibibio) on the research objectives and informed, written consent obtained. Participation was voluntary and confidentiality ensured. Thereafter, each individual was administered a questionnaire by the researcher to provide the information therein. The questionnaire, which wassemi-structured,sought information on sociodemographic characteristics such as age, sex, marital status etc. The Oyedeji's social classification[10] was used to ascertain the socio-economic status of the respondents. The Geriatric Depression Scale was used to screen the respondents for depression.

The Geriatric Depression Scale (GDS) is a screening instrument for depression in the elderly. It was developed by Yesavage et al and has been tested and used extensively with the older population. The GDS has been recommended by the Royal college of Physicians, British Geriatric Society and the Royal College of General Practitioners as a suitable scale to screen for depression. The 15 and 30- item format have been extensively validated. The 30- item format was used in this study and respondents answered each question in a yes and no format, one point for each of these answers. The cut-off for normal was 0 to 9; mild/moderate depressives -10 to19 and severe depressives were awarded a score of 20 to 30. Higher scores therefore correlated with the severity of depressive symptoms.[8]Ethical clearance was obtained from the University of Uyo Teaching Hospital Research and Ethical Committee before commencement of the study. Data entry and analysis were done using the Statistical Package for Social Sciences (SPSS) version 17.0. Descriptive statistics such as mean and standard deviation were used to analyse continuous variables while frequency and percentages of categorical variables were also determined. Inferential statistics such as Chi-Square (X^2) test and odd ratios were employed to compare differences in proportions or groups. The level of statistical significance was set at $p<$ 0.05.

III. Results

A total number of three hundred and ten (310) respondents were recruited for the study between July and September, 2014. The demographic characteristics of the respondents are as shown in table 1 Majority of them were women (57.1%), with a female to male ratio of 1.3:1. The minimum and maximum ages of respondent were 60 and 90 years respectively. The mean age (±SD) was 67.4 (± 6.6) years. 74.8% of the respondents had at least attained primary level of education and most were married (51.9%). The median monthly income was ₦25,500.00 with interquartile range of ₦ 10,000.00 – ₦50,000.00

Table 1 Sociodemographic characteristics of 310 elderly persons attending the GOP clinics of the UUTH, Uyo.

Characteristics	Frequency	Percentage
Sex		
Male	133	42.9
Female	177	57.1
Total	**310**	**100**
Educational Level		
No Formal Education	78	25.2
Primary Education	130	41.9
Secondary Education	22	7.1
Post-Secondary Education	80	25.8
Total	**310**	**100**
Income Source		
None	136	43.9
Pension	102	32.9
Trading	36	11.6
gifts	14	4.5
Salary	18	5.8
Farming	2	0.6
Driving	1	0.3
Carpentry	1	0.3
Total	**310**	**100**
Marital Status		
Single	6	1.9
Married	161	51.9
Divorced	6	1.9
Widowed	137	44.3
Total	**310**	**100**

Table 1(contd.) Sociodemographic characteristics of 310 elderly persons attending the GOP clinics of the UUTH, Uyo.

Characteristics	Frequency	Percentage
Average Income grade		
No income	136	43.9
Less than N50,000	128	41.3
N50,000 < N100,000	29	9.3
⩾N100,000	17	5.5
Total	**310**	**100**
Religion		
Christianity	310	100
Islam	0	0
Others	0	0
Tribe		
Ibibio	224	72.2
Annang	61	19.7
Oron	13	4.2
Igbo	9	2.9
Others	3	1.0
Total	**310**	**100**
Type of Settlement		
Rural	184	59.4
Urban	126	40.6
Total	**310**	**100**

Proportion and level of Depression among elderly respondents attending the GOP clinics of theUUTH, Uyo

The proportion and level of depression of the respondents are as shown in table 2. Of the 310 respondents recruited for the study, one hundred and forty (45.2%) had depression while one hundred and seventy (54.8%) were not depressed.Of the one hundred and forty depressed elderly, 127 (41.0%) had mild to moderate depression and 13 (4.2%) had severe depression.

Table 2: Proportion of depression among elderly patients attending GOP clinics of the UUTH, Uyo.

Characteristics	Frequency	Percentage

Proportion of Depression		
Not Depressed	170	54.8
Depressed	140	45.2
Total	**310**	**100**
Levels of Depression		
Mild-Moderate Depression	127	90.7
Severe Depression	13	9.3
Total	**140**	**100**

IV. Discussion

In this study, the overall proportion of depression in the elderly was found to be 45.2% among which 41.0% were mild to moderately depressed and 4.2% severely depressed. This finding suggests that about a half of elderly persons walking into our clinic have depressive symptoms. The result is almost similar to a multi-center study in Bahrain where the prevalence of depression in the elderly was found to be 41.5%.[11] Higher prevalence of 63%, with 21% of these having severe depression, was observed among community dwelling elderly persons in Korea withperceived health status beingthe significant predictor of depression among the elderly in that study.[12] Another cross sectional study conducted at three large primary care centers in Riyadh, Saudi Arabia showed a prevalence of 49.9%, of which 31% were mild, 13.4% moderate. 4.4% moderate-severe, and 1.0% severe cases.[13]The elderly depression rate in this study is also higher than the United States of America prevalence of 10 to 15% which was also found to be similar in the United Kingdom and other Asian countries.[14-16] Also, the rate in this study is higher than the prevalence rates of 4% and 9.1% reported in South Africa and Ethiopia respectively[17,18]. A study by Sokoya in South -West Nigerian also reported a lower prevalence of 7.4% with poor self- assessed health and low income as the predictors[19] and this was comparable to a later study in that region by Gureje et al in a community-based longitudinal epidemiological comparative study of elderly African Americans in Indianapolis and elderly Yoruba in Ibadan, Nigeria. Using the Geriatric Depression Scale,he found the prevalence estimates of both mild and severe depression were similar for the two sites; 12.3% (mild depression) and 2.2% (severe depression) in Indianapolis and 19.8% for mild depression, 1.6% for severe depression in Ibadan. Some differences were identified in association with demographic characteristics; for example, Ibadan men had a significantly higher prevalence of mild depression then Indianapolis men.[20]A study by Onya in South-South, Nigeria also reported a lower prevalence of 28%.[21]Olagunju et al also reported a lower prevalence with mild depression being preponderant.[22]Differences in study techniques and variations in sociodemographic conditions may be the reasons for the variations in prevalence rates across regions.The study was a hospital – based study and not population – based study; patients came with symptoms of other diseases and not necessarily depression thus making the generalization of the study difficult. The instrument used for the study was a screening instrument, it depended on the subjects' responses rather than objective clinical parameters for diagnosis of depression. A second stage study using a diagnostic tool for depression is recommended.

In conclusion, nearly half of the elderly patients visiting our general out-patient clinics had depressive symptoms which require further exploration into their psychiatric history. The findings in this study suggest that depression remains an important clinical issue in the elderly and may remain undetected if not carefully sought for through screening. Primary care physicianswho will encounter these growing numbers of elderly persons, many of whom will present with multiple co-morbid conditions, should look beyond the patients' somatic complaints and unmask this common but treatable medical condition. They should therefore increase their knowledge and index of suspicion with regards depression in the elderly. A quick screening tool such as the GDS is often a useful first step in detecting depression. Training in depression screening methods, patient follow up, interviews and appropriate referrals would improve the care of depressed elderly patients. These could be achieved by including geriatric studies in the undergraduate medical curriculum as well as postgraduate programs in the world.

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