Research Article   **OMICS International**

Socio Demographic Correlates of Depressed Patients Attending a Tertiary Hospital in Nigeria

Chidozie Donald Chukwujekwu[1*], Emmanuel Omamurhomu Olose[2], Gerald Owei Dariah[1], Chukwuma Ugochukwu Okeafor[1]

[1]Department Of Neuropsychiatry, University of Port Harcourt, Teaching Hospital, Port Harcourt, Rivers State, Nigeria

[2]Department Of Psychiatry, University Of Calabar, Cross Rivers State, Nigeria

*Corresponding author: Chidozie Donald Chukwujekwu, Department of Mental Health, University of Port Harcourt, Nigeria, Tel: 08035928593; E-mail: chidozie.chukwujekwu@uniport.edu.ng

Abstract

Objective: To identify the socio-demographic factors that correlate with depression in patients attending a tertiary hospital in the Niger Delta region of Nigeria.

Methods: 470 subjects, recruited by a systematic sampling method participated in the study. The Beck's Depression Inventory (BDI) was administered to each person. Only one hundred and eighty five subjects met the criteria for the second stage of the study, (a score of 18 and above on the BDI). Diagnosis was made with the Composite International Diagnostic Interview schedule and data analysis done with the statistical package in the social sciences (SPSS).

Results: The prevalence of depression was significantly lower among the married in comparison to the presently unmarried which includes the widowed, the divorced/separated and the single (X^2=4.070, df=1, p<0.05). The higher prevalence of depression among low income earners was also statistically significant (X^2=12.453, df=4, p<0.05).

Conclusion: It is recommended that family physicians and psychiatrists should develop a high index of suspicion when attending to patients in order to reduce the number of missed diagnosis of Depression. Furthermore, policy makers should enunciate policies to improve the quality of life of citizens and reduce the incidence and burden of Depression in our environment.

Introduction

Depressive disorders are among the top five leading causes of years of life lived with disability (YLD) according to World Health Organization (WHO) [1].

Epidemiological studies of depression provide not surprisingly in consistent results due to the differences in methodologies employed in the various studies [2,3]. Depression is a common mental health disorder in primary care settings globally and its diagnosis is often missed; hence the disorder undertreated by primary care physicians [4,5]. Deficient skills to elicit psychopathology on the part of the attending physician as a result of his limited training in psychiatry among other factors may be responsible for this.

A collaborative study by WHO involving 14 countries revealed that not only are mental disorders frequent in the general health care settings, the commonest problems identified include depression, anxiety, disorders, alcohol abuse, somatoform disorders and neurasthenia; and the prevalence of depression was reported to be 10.4% [6,7].

Most of the studies done on Depression in Africa focused on ascertaining the prevalence of the disorder [8,9]. Even though a few studies that studied the relationship between depression and socio-demographic factors were done in some parts of Nigeria, none has been done in the Niger Delta Region which is basically cosmopolitan with almost all the major tribes in Nigeria ably represented [10-12].

In the light of the foregoing, it has become imperative to carry out a research into the socio-demographic factors which correlate with depressive illness in the Niger Delta Region of Nigeria. This will improve our knowledge on how best to manage patients suffering from depression in this part of the world.

Materials and Method

This study was conducted at the general outpatient clinic of the University of Port Harcourt Teaching Hospital (UPTH) from February 2011-July 2011. This paper is part of that larger study.

Instruments

Instruments utilized in this research include the Beck's Depression Inventory (BDI), Composite International Diagnostic Interview (CIDI) and a Socio-demographic Protocol designed by the authors.

The Beck's Depression Inventory (BDI) is a questionnaire comprising 21 items [13]. It is an established instrument used in screening for depression and has been revised based on the diagnostic criteria of the Diagnostic and Statistical Manual (DSM IV) [14]. The BDI (2nd edition) has been positively correlated with the Hamilton Depression Rating Scale (HDRS) with a good Pearson Coefficient of

0.71. Its test-retest reliability (0.93) and internal consistency (0.91) are quite high [15,16]. Each subject is expected to choose one of 4 statements; the one that best explains his/ her feelings in the previous forth-night and each option carries a score of 0-3 [17,18]. The total score of all the items (0-63) indicates the severity of the depression. The BDI has been revalidated in Nigeria and a score of at least 18 indicates a Depressive Disorder

The CIDI helps provide diagnoses based on the 1CD-10 and the DSM-IV criteria. It is an invaluable instrument used in the study of the epidemiology of psychiatric disorders. The validity of the instrument, its inter-rater as well as test-retest reliability are excellent [15,16]. Many researchers have used it successfully in Nigeria. The paper and penal form of the CIDI (version 3.0) was utilized in this work. The diagnosis of major depression and alcohol use disorders were made by comparing the symptoms generated by CIDI with the criteria spelt out in the DSM-IV.

Procedure

This is a 2 stage study. The first stage entails administering the BDI instrument to the 470 participants. Using the CIDI, diagnosis of major depression was made. One hundred and eighty five (185) subjects who met the criteria for the second stage scored 18 or more on BDI.

The sampling method used to recruit the subjects was the systematic type. The first patient was selected randomly from the first 4 eligible patients who attended the clinic on the first day of the study. Thereafter, every fourth eligible patient who attended the clinic was enlisted until the end of each clinic day. This exercise continued for many days until the full complement of sample required was achieved. It is important to note that the ethical committee of the institution (UPTH) gave a written approval for this work to be done. Also, informed consent was obtained from the subjects. Analysis of data was carried out with the aid of the Statistical Package for Social Sciences (SPSS) at 5% level of significance and 95% confidence interval [19].

Using the chi-square or Fisher's exact (2-tailed) test, categorical variables were analyzed; while continuous variables (e.g. BDI scores) were compared by the student's t-test. Degree of association between socio-demographic variables and Depression were assessed using multivariate correlation analysis [20].

Results

The table below shows the prevalence rates of depression among the different age groups in years (Table 1). The largest proportion of the depressed patients were aged 58-67 years (38.9%) and the least belonged to the 68-77 age group category (0.0%). However the differences in the prevalence rates of depression among the age groups were not statistically significant (X^2=6.309, df=5, p value=0.08). The prevalence of depression was slightly higher among females (30.4%) than males (26.3%). This difference was not significant (X^2=0.942, df=1, p value=0.332). The highest prevalence rate of depression was among the Ogonis (42.9%) while the least was among the Yorubas (15.4%). The prevalence rate of depression among the Ibos was 26.1%, the Ikwerres 33.3%, Ogonis 42.9%, Ijaws 16.3%, other south-south ethnic groups 33.7%, Yorubas 15.4% and other ethnic groups 33.3%. These differences were not significant (X^2=11.610, df=1, p=0.6). The prevalence rate of depression was significantly lower among the married in comparison to the presently unmarried which includes the widowed, the divorced/separated and the single who have never married (X^2=4.070, df=1, p value=0.04). Among the Christians 28.2% were depressed, 27.3% of the patients who profess the Islamic faith were depressed while 60% of those of other religious persuasions were depressed which included two Traditionalists and an Eckist. However these differences were not statistically significant (X^2=2.47, df=1, p value=0.291). Higher rates of prevalence of depression were recorded among those with lower education. Those without any formal education had a prevalence rate of 50.0%, those with secondary education had a prevalence rate of 32.7% and those with primary education had a prevalence of 31.7% while those with tertiary education had the least prevalence of 24.7% for depression. However, these differences were not significant (X^2=6.08, df=3, p value=0.108). There was no statistically significant difference between the prevalence rates of depression of patients based on their employment status (X^2=10.426, df=5, p value=0.064). The highest prevalence rate of Depression was among the unemployed (29.1%) and the least was among the employed (27.0%). Those who earned less showed a significantly higher prevalence rate of depression than those who earned more. Those whose average monthly income was less than N30,000 per month had a depression prevalence of 32.7%, those who earned between N30,000 and N100,000 per month had a prevalence rate of 19.2% while those who earned more than N100,000 monthly had a prevalence rate of 16.7%. This higher prevalence rate of depression among low income earners was statistically significant (X^2=12.453, df=4, p value=0.014).

Variables	Without depression n (%)	With depression n (%)	Total	X^2	df	p value
Age group in years						
18-27	93 (66.4)	47 (33.6)	140			
28-37	125 (74.9)	42 (25.1)	167			
38-47	67 (70.5)	28 (29.5)	95	6.309	5	0.08
48-57	36 (78.3)	10 (21.7)	46			
58-67	11 (61.1)	7 (38.9)	18			
68-77	4 (100.0)	0 (0.0)	4			

Gender						
Male	157 (73.7)	56 (26.3)	213	0.942	1	0.332
Female	179 (69.6)	78 (30.4)	257			
Ethnicity						
Ibo	130 (73.9)	46 (26.1)	176	11.61	1	0.6
Ikwerre	56 (66.7)	28 (33.3)	84			
Ogoni	16 (57.1)	12 (42.9)	28			
Ijaw	41 (83.7)	8 (16.3)	49			
Other south groups-south-ethnic	61 (66.3)	31 (33.7)	92			
Yoruba	22 (84.6)	4 (15.4)	26			
Others	10 (66.7)	5 (33.3)	15			
Marital Status						
Presently unmarried*	146 (67.0)	72 (33.0)	218	4.07	1	0.044**
Married	190 (75.4)	62 (24.6)	252			
Religion						
Christianity	318 (71.8)	125 (28.2)	443	2.47	2	0.291
Islam	16 (72.7)	6 (27.3)	22			
Others	2 (40.0)	3 (60.0)	5			
Educational level						
Tertiary education	201 (75.3)	66 (24.7)	267	6.08	3	0.108
Secondary education	101 (67.3)	49 (32.7)	150			
Primary education	28 (68.3)	13 (31.7)	41			
No formal education	6 (50)	6 (50.0)	12			
Employment						
Unemployed	39 (70.9)	16 (29.1)	55	10.426	2	0.064
Student	65 (67.0)	32 (33.0)	97			
Employed	232 (73.0)	86 (27.0)	318			
Average Monthly Income in Naira						
≤ 30,000	222 (67.3)	108 (32.7)	330	12453	2	0.014*
>30,000-100,000	84 (80.8)	20 (19.2)	104			
>100,000	30 (83.3)	6 (16.7)	36			

Table 1: Association between socio-demographic variables and depression, * Significant.

Discussion

The prevalence rate of 28.5% for depression reported in this study is higher than the 3.1% and 1.0% reported in the Nigerian Survey of Mental health and Well-Being [18]. The hospital based nature of this study must have contributed to this. Secondly, the urban nature of Port Harcourt with the attendant problems of human and vehicular congestion could be regarded as enduring stressors [18]. Although the region of the Niger Delta is blessed with oil resources, there has been scarcely any positive impact of this on the socio-economic lives of the people living in this area. A lot of the people in this region live in very poor conditions with a greater number of young people unemployed. The roads which are scarcely available are in poor conditions and many communities lack basic amenities such as portable water and

electricity. A lot of children and women also die from preventable causes because of the lack of basic health facilities. All these could also be regarded as enduring stressors which could explain the high prevalence rate of depression recorded in this study. However the above rate is similar to the 25.5% reported at the general outpatient clinic of Jos University Teaching Hospital [10]. This similarity may be due to the urban nature of both cities as well as the fact that both studies were hospital based.

The prevalence rate of depression was slightly higher among females reflecting the higher prevalence rate of depression in females in the general population [21]. There was a lower prevalence rate among the married than those that were without a spouse (including the single, widowed and divorced/separated). This conforms to the findings of other workers portraying the protective effect of marriage in depression [22,23].

Like in other studies, the less educated and lower income earners were over represented among the depressed [22,23]. A possible explanation is that education affords people the opportunity to understand their socio-cultural environment in a better perspective. Therefore, they tend to adapt better to the potential stressors in their environment. Furthermore, low educational status is also linked to low socio-economic status with its resultant low income. However, in line with findings from previous studies, there was no statistically significant association between age and Depression in this study [3].

Limitation

This is a hospital based study; therefore its application to the general population should be done with caution.

Conclusion

In view of the burden of depression on the patients in particular and the society at large, the need to highlight this disorder in the practice and training of family physicians and psychiatrists to improve efficiency in the diagnosis and treatment of this condition is imperative. Furthermore, policy makers should enunciate policies to improve the quality of life of citizens and reduce the incidence and burden of Depression in our environment.

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