



**Original Work**

**Depressed patients seen at the University of Benin Teaching Hospital (UBTH): a six-year review**

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**ABSTRACT:** The contribution of depression to disease burden is enormous and is even expected to increase. Patients, caregivers and indeed society suffer on account of depression. Data was obtained from the case files of 152 depressed patients out of the total of 522 patients attended to in the mental health clinic of a teaching hospital, over a six-year period. Thus the period prevalence of depression was 29.12%. There were more females (females 55.3% and males 44.7%). Majority of the patients were in the age group 23-33 years, 53.3% were unemployed, 46.1% had experienced a stressful life event prior to being diagnosed with depression and 17.8% had a first-degree relation who has suffered depression. All the patients had depressed mood while more than 80% had anhedonia, anorexia and insomnia. Almost 60% had severe depression. Of all the patients' characteristics considered, only impaired occupational functioning was significantly associated with severe depression while impaired occupational functioning, feeling of worthlessness, suicidal ideation and severe depression were significantly associated with attempted suicide. Depressive symptomatology in the region appears to have been stable over the years. Clinicians need to pay attention to occupational functioning, as it may be a pointer to the severity of depression. Impaired occupational functioning, feelings of worthlessness and suicidal ideation should be inquired after during evaluation of depressed patients as uncovering them may forestall attempted or actual suicide.

**KEY WORDS:** *Depressed; Patients; Clinic; Prevalence*

**INTRODUCTION**

Depression is a leading neuropsychiatric ailment that causes disability globally. It occupies the fourth among the ten leading causes of disability-adjusted life years (DALYs) and it is the most significant cause of Years Lost due to Disability (YLD) at all ages.<sup>1</sup> It is projected that depression will be the greatest contributor to disease burden by 2030.<sup>2</sup> Almost 15% of the global population suffer from depression at least once in their lifetime.<sup>1</sup> Depression causes pain for patients and their caregivers; it leads to absenteeism and loss of productivity.<sup>3,4</sup>

Depression has significant association with death. As much as 15% of patients who are on treatment

for depression die by suicide; this may even be higher among untreated patients.<sup>5</sup> It is sad to note that most cases of depression do not receive treatment,<sup>4</sup> even though early diagnosis and appropriate treatment would significantly reduce the risk of suicide.<sup>6</sup> Apart from suicide, other features of depression are low mood, anhedonia, decreased energy, feelings of guilt, low self-worth, disturbed sleep, loss of appetite, poor concentration etc.<sup>7</sup>

In view of the implications of depression, including socioeconomic concerns, there is need for more studies on the subject. For example, in Nigeria the few studies available have largely been conducted in the south-west of Nigeria.<sup>8-10</sup> Consequently this study was carried out (in South Nigeria) to determine the prevalence of depression among patients attended to over a 6 year period at the Mental Health clinic of the University of Benin Teaching Hospital, Benin City, Nigeria; elicit features of depression, find out if there was any

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significant association between severity of depression and the patients' characteristics and lastly investigate if there was any significant association between attempted suicide and patients' variables. It is expected that the outcome of this research will be of value to researchers and clinicians in the area of depression.

**METHODOLOGY**

The Department of Mental Health of the University of Benin Teaching Hospital runs clinics at the consultant outpatient department. A record of patients attended to on each clinic day is kept by the nurse attached to the mental health clinic. The record kept by the nurse includes the names of the patients, hospital numbers, disposal/medications prescribed. The record of patients, who attended the clinic from January 2010 to December 2015 was obtained from the nurse. The names of the patients, their hospital numbers and the medication prescribed for them were entered into an Excel data sheet. Excel was used to sort the names in alphabetical order. Thereafter any patient whose particulars appeared more than once had the duplication deleted, such that no patient had his or her particulars entered more than once. Thus it was found that the total number of patients who visited the clinic during the study period was 522. All the patients who did not have a prescription of an antidepressant or mood stabilizer were identified from the Excel data sheet and deleted. Thereafter permission was obtained from the Head of Department of Medical Records of the University of Benin Teaching Hospital to access the case files of the patient whose names and hospital numbers were left on the Excel data sheet.

Two staff of the medical records department helped to retrieve the case files of the patients. The diagnosis of depression was confirmed for each patient from the case files. All the diagnoses were either made or confirmed by a consultant psychiatrist, according to the International Classification of Disease-10 (ICD-10) criteria.<sup>7</sup> Thus, the inclusion criterion for the study was the patient being treated pharmacologically for depression from January 2010 to December 2015, while exclusion criteria were patients treated for post-schizophrenic depression, depression co-morbid with substance use disorder, or inadequate data.

Other ethical considerations included obtaining approval from the Research and Ethics Committee of the University of Benin Teaching Hospital, password protecting the data, and once data had been retrieved from the case files, the names of the patients were deleted from the data sheet.

A total of 152 patients were ultimately included in the study and their data was entered into SPSS version 20.0.<sup>11</sup> The data was analyzed for

sociodemographic variables and clinical features in terms of frequency and the Chi-square test was used to evaluate the association between severity of depression/attempted suicide and sociodemographic and other characteristics of the patients. The level of significance was set at less than 0.05.

**RESULT**

A total of 522 patients were attended to in the clinic during the period under review, while 152 were diagnosed and treated for depression. **Table 1** shows that there were more females (55.3%) than males (44.7%). Majority of the patients were in the age group 23–33 years, 53.3% were unemployed, 46.1% had experienced a stressful life event prior to being diagnosed with depression and 17.8% had a first-degree relation who has suffered depression. **Table 2** shows that the prevalence of depression was 29.119%. **Table 3** shows that all the patients had depressed mood while more than 80% had anhedonia, anorexia and insomnia. Almost 60% had severe depression. **Table 4** shows that of all the patients' characteristics considered, only impaired occupational functioning was significantly associated with severe depression. **Table 5** shows that impaired occupational functioning, feeling of worthlessness, suicidal ideation and severe depression were significantly associated with attempted suicide.

**Table 1: Sociodemographic characteristics of the patients**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<i>Sex</i>		
<i>Female</i>	84	55.3
<i>Male</i>	68	44.7
<i>Age (in years)</i>		
12-22	15	9.9
23-33	42	27.6
34-44	35	23.0
45-55	30	19.7
56-66	14	9.2
67-77	14	9.2
78-88	1	0.7
89-99	1	0.7
<i>Employment status</i>		
Unemployed	81	53.3
Employed	71	46.7
<i>Stressful life event</i>		
Absent	82	53.9
Present	70	46.1
<i>Family history (1<sup>st</sup> degree relative) of depression</i>		
Absent	125	82.2
Present	27	17.8

**Table 2: Prevalence of depression**

Total number of patients attended to	522
Number of patients recruited for the study	152
Prevalence	29.119

**Table 3: Features of depression**

Variable	Frequency	Percentage
Depressed mood	152	100.0
Anhedonia	143	94.1
Anergia	99	65.1
Anorexia	132	86.8
Weight loss	78	51.3
Weight gain	4	2.6
Loss of concentration	53	34.9
Psychomotor retardation	34	22.4
Psychomotor agitation	12	7.9
Insomnia	129	84.9
Hypersomnia	2	1.3
Impaired occupational function	95	62.5
Feeling of worthlessness	65	42.8
Suicidal ideation	36	23.7
Attempted suicide	11	7.2
Mild depression diagnosis	5	3.3
Moderate depression diagnosis	57	37.5
Severe depression diagnosis	90	59.2

**DISCUSSION**

The period prevalence of depression was 29.119%. This is much higher than the 5.2% reported in a study done in Maiduguri, north-east Nigeria.<sup>12</sup> The Maiduguri study reported a total of 26374 patients attending the clinic over a 5-year period and 1369 of them were diagnosed with depression. Unfortunately, the prevalence reported by the current study could not be compared with any other from the region of the present study as a search of PubMed, Google Scholar and AJOL did not reveal any study of depression among attendees of psychiatric/mental health clinics in the region. This is thus, to the best of our knowledge, the first such study.

Majority of the respondents were in the age range 23-33 years and there were more females than males. These findings are in keeping with reports from other parts of Nigeria<sup>12-14</sup> and the world.<sup>15-17</sup> Most (53.3%) were unemployed. This is in agreement with findings from prior studies in the region<sup>18</sup> and other parts of Nigeria<sup>14</sup>. Depression is known to be associated with unemployment; however the nature of this association is contentious. Several studies have documented job loss to have significant impact on depression while others report depression to be a risk factor for job loss.<sup>19</sup> Analysis from the World Mental Health Surveys documents the latter association by showing that history of mental disorders as at the age of completing schooling predicted current (at the time of interview) unemployment and work disability; but this was found to be significant in high income countries and not significant in low/lower-middle income countries like Nigeria.<sup>20</sup> Individuals with mental disorders face the same adversities such as unemployment as other people in society. Since the unemployment rate in Nigeria is high,<sup>21</sup> the observed unemployment rate among the patients may be a reflection of what is happening in the general population. Of all the patients, 46.1% experienced a stressful life event prior to being diagnosed. Several studies have documented the relationship between stressful life events and the development of symptoms of depression.<sup>22,23</sup> These events include stress at work and financial difficulties which have been found to be associated with psychopathology in Nigeria.<sup>10</sup> All the patients presented with depressed mood. Other common presenting features were anhedonia (94.1%), anorexia (86.8%) and insomnia (84.9%). These are similar to the presentation seen in patients studied decades ago (1998)<sup>18</sup> where common findings in patients with depression were depressed mood (98.5%), anhedonia (98.5%) and sleep disturbance (90.6%). There may thus appear to have been some constancy in the common symptoms of depression in the region. Severe depression was the most common diagnosis (59.2%). This is in harmony with earlier findings in the region where severe depression was the most common (80.3%).<sup>18</sup> However, the finding is less than 80.3%. This may be a reflection of increased awareness about mental health issues and earlier presentation and treatment of cases of depression such that more patients are presenting in mild/moderate depression. Family history of depression was not significantly associated with severity of depression. However, while there was no family history of depression in mild depression patients, family history was found in 74.1% of individuals with severe depression. This finding is in accord with earlier reports.<sup>22</sup>

**Table 4: Association between severity of depression and patients' characteristics**

		Severity of depression			$\chi^2$	p-value
		Mild n (%)	Moderate n (%)	Severe n (%)		
Sex	Female	4 (4.8)	28 (33.3)	52 (61.9)	2.337	0.331
	Male	1 (1.5)	29 (42.6)	38 (55.9)		
Age (in years)	12-55	2 (2.4)	36 (43.9)	44 (53.7)	1.473	0.528
	56-99	3 (4.3)	21 (30.0)	46 (65.7)		
Stressful life events	Absent	2 (2.4)	36 (43.9)	44 (53.7)	3.265	0.199
	Present	3 (4.3)	21 (30.0)	46 (65.7)		
Employment status	Unemployed	1 (1.2)	26 (32.1)	54 (66.7)	5.203	0.081
	Employed	4 (5.6)	31 (43.7)	36 (50.7)		
Family history of depression	Absent	5 (4.0)	50 (40.0)	70 (56.0)	3.478	0.159
	Present	0 (0.0)	7 (25.9)	20 (74.1)		
Impaired occupational functioning	Absent	5 (8.8)	51 (89.5)	1 (1.8)	1.249	0.001***
	Present	0 (0.0)	6 (6.3)	89 (93.7)		

\*\*\* = Statistically significant

**Table 5: Association between attempted suicide and patients' characteristics**

		Attempted suicide		$\chi^2$	p-value
		Absent n (%)	Present n (%)		
Sex	Female	78 (92.9)	6 (7.1)	0.002	1.000
	Male	63 (92.6)	5 (7.4)		
Age (in years)	12-55	112 (91.8)	10 (8.2)	0.848	0.468
	56-99	29 (96.7)	1 (3.3)		
Stressful life events	Absent	77 (93.9)	5 (6.1)	0.344	0.755
	Present	64 (91.4)	6 (8.6)		
Employment status	Unemployed	74 (91.4)	7 (8.6)	0.510	0.544
	Employed	67 (94.4)	4 (5.6)		
Family history of depression	Absent	115 (92.0)	10 (8.0)	0.611	0.690
	Present	26 (96.3)	1 (3.7)		
Impaired occupational functioning	Absent	57 (100.0)	0 (0.0)	7.115	0.007***
	Present	84 (88.4)	11 (11.6)		
Insomnia	Absent	22 (95.7)	1 (4.3)	0.337	0.700
	Present	119 (92.2)	10 (7.8)		
Anorexia	Absent	20 (100.0)	0 (0.0)	1.797	0.361
	Present	121 (91.7)	11 (8.3)		
Feeling of worthlessness	Absent	87 (100.0)	0 (0.0)	15.872	0.001***
	Present	54 (83.1)	11 (16.9)		
Anhedonia	Absent	9 (100.0)	0 (0.0)	0.746	0.629
	Present	132 (92.3)	11 (7.7)		
Anergia	Absent	52 (98.1)	1 (1.9)	3.470	0.098
	Present	89 (89.9)	10 (10.1)		
Suicidal ideation	Absent	116 (100.0)	0 (0.0)	66.734	0.001***
	Present	25 (69.4)	11 (30.6)		
Severity of depression	Mild	5 (100.0)	0 (0.0)	8.169	0.049***
	Moderate	57 (100.0)	0 (0.0)		
	Severe	79 (87.8)	11 (12.2)		

\*\*\* = Statistically significant

Among stressful life events, unemployment and lack of occupational functioning, only lack of occupational functioning was significantly associated with the severity of depression; in contrast to earlier studies.

In the current study 7.2% had attempted suicide. A study in Sweden found that depressed women were significantly more likely to attempt suicide than men.<sup>25</sup> However, a systematic review of the risk factors for suicide in individuals with depression reported that male gender was significantly associated with attempt at suicide.<sup>26</sup> In our study though a higher proportion of males (7.4%) had attempted suicide (females 7.1%), this was not statistically significant; a finding in keeping with a large-scale, prospective study on the risk factors for attempted suicide in patients with depression.<sup>27</sup> Of our study sample, 23.7% had suicidal ideation. This is lower than earlier reports from the region where Otote and Ohaeri reported 31.3%<sup>18</sup> and Binitie reported 31.8%.<sup>28</sup> There was no suicidal attempt among those who had mild/moderate depression while 12.2% of individuals with severe depression had attempted suicide. Suicidal ideation, feelings of worthlessness and impaired occupational functioning were significantly associated with suicidal attempts, while severity of depression was only marginally associated. These factors are consistent with those in the literature of risk factors for suicide in depressed patients.<sup>26</sup>

The finding of this study may not be generalizable since it was hospital-based. The findings may not be extrapolated to depression in other setting, for example co-morbid clinical conditions. More studies are needed to corroborate the findings of the study *vis-a-vis* association between severity of depression/attempted suicide and patients' characteristics

## CONCLUSION

The prevalence of depression among patients at the Mental Health Clinic of the University of Benin Teaching Hospital was quite high. Depressive symptomatology at presentation in the clinics in the region appears to have been constant over the years. Clinicians need to pay attention to occupational functioning, as it may be a pointer to the severity of depression. Impaired occupational functioning, feelings of worthlessness and suicidal ideation should be enquired after during evaluation of depressed patients as uncovering them may forestall attempted or actual suicide.

## REFERENCES

1. World Health Organization. Mental health: new understanding, new hope. 2001. Available from:

[http://www.who.int/whr/2001/en/whr01\\_en.pdf](http://www.who.int/whr/2001/en/whr01_en.pdf). Accessed 19 August 2016.

2. World Health Organization. The global burden of disease: 2004 update. Available from: [http://www.who.int/entity/healthinfo/global\\_burden\\_disease/GBD\\_report\\_2004update\\_full.pdf](http://www.who.int/entity/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf). Accessed 19 August 2016.
3. World Federation for Mental Health. Depression: A Global Crisis. 2012. Available From: [http://www.who.int/mental\\_health/management/depression/wfmh\\_paper\\_depression\\_wmhd\\_2012.pdf](http://www.who.int/mental_health/management/depression/wfmh_paper_depression_wmhd_2012.pdf). Accessed 19 August 2016.
4. Gureje O, Uwakwe R, Oladeji B, Makanjuola VO, Esan O. Depression in adult Nigerians: results from the Nigerian Survey of Mental Health and Well-being. *J Affect Disord.* 2010;120:158-64.
5. Bostwick JM, Pankratz VS. Affective disorders and suicide risk: a reexamination. *Am J Psychiatry.* 2000;157:1925-32
6. Rihmer ZI. Can better recognition and treatment of depression reduce suicide rates? A brief review. *Eur Psychiatry.* 2001;16:406-9.
7. World health organization. International classification of diseases. Tenth revision. Geneva. Oxford university press, Delhi.1992:30-1.
8. Gureje OI, Lasebikan VO, Kola L, Makanjuola VA. Lifetime and 12-month prevalence of mental disorders in the Nigerian Survey of Mental Health and Well-Being. *Br J Psychiatry.* 2006;188:465-71.
9. Amoran O, Lawoyin T, Lasebikan V. Prevalence of depression among adults in Oyo, Nigeria: a comparative study of rural and urban communities. *Aust J Rural Health.* 2007;15 (3):211-5.
10. Amoran OE, Ogunsemi OO, Lasebikan VO. Assessment of mental disorders using the PHQ as a general screening tool in western Nigeria; A community based study. *J Neurosci Rural Pract.* 2012;3: 6-11.
11. IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.
12. Jidda MS, Rabbebe IB. Factors associated with depression among outpatients attending a neuropsychiatric clinic in Maiduguri, Nigeria. *Nig J Psych.* 2013;11:24-6.
13. Kwajaffa PS, Abdu WI, Onyencho VC, Jidda MS, et al. Socio-demographic profile and comorbid disorders amongst Mood Disorder Patients in Northeastern Nigeria. *Int J Pharmacognosy Phytochem Res.* 2016;5:16-26.
14. Aiyelero OM, Kwanashe HO, Sheikh TL, Hussaini IM. Some sociodemographic features of mood Disorders presented by patients attending a northern Nigerian tertiary health

- institution clinic. *J Applied pharmaceutical Sci.* 201;1:92-5.
15. Gorman J. Gender differences in depression and response to psychotropic medication. *Gender Medicine.* 2006;3:93-109.
  16. Weissman MM, Klerman GL. Sex differences and the epidemiology of depression. *Arch Gen Psychiatry.* 1977;34:98-111.
  17. Akhtar-Danesh N, Landeen J. Relation between depression and sociodemographic factors. *Int J Ment Health Syst.* 2007;1(1):4. DOI: 10.1186/1752-4458-1-4.
  18. Otote DI, Ohaeri JU. Depressive Symptomatology and Short-Term Stability at a Nigerian Psychiatric Care Facility. *Psychopathology.* 2000;33:314-23.
  19. Dooley D. Health and unemployment. *Annu Rev Public Health.* 1996;17:449-65.
  20. Kawakami N, Abdulghani E, Alonso J, Bromet E, et al. Early-life mental disorders and adult household income in the World Mental Health Surveys. *Biol Psychiatry.* 2012;72:228-37.
  21. Unemployment rate - Nigeria Data Portal [Internet]. Knoema. 2016. Available from: <http://nigeria.opendataforafrica.org/blizore/unemployment-rate?Region=Nigeria>. Accessed 17 September, 2016
  22. Kendler KS, Karkowski LM, Prescott CA. Causal relationship between stressful life events and the onset of major depression. *Am J Psychiatry.* 1999;156:837-41.
  23. You S, Conner KR. Stressful life events and depressive symptoms: influences of gender, event severity, and depression history. *J Nerv Ment Dis.* 2009;197:829-33.
  24. Weissman MM, Gershon ES, Kidd KK, Prusoff B, et al. Psychiatric disorders in the relatives of probands with affective disorders. The Yale University--National Institute of Mental Health Collaborative Study. *Arch Gen Psychiatry.* 1984;41:13-21.
  25. Ösby U, Brandt L, Correia N, Ekblom A, et al. Excess Mortality in Bipolar and Unipolar Disorder in Sweden. *Arch Gen Psychiatry.* 2001;58:844-50.
  26. Hawton K, Casañas I Comabella C, Haw C, Saunders K. Risk factors for suicide in individuals with depression: a systematic review. *J Affect Disord.* 2013;147:17-28.
  27. Sokero TP, Melartin TK, Rytsala HJ, Leskela US, et al. Prospective study of risk factors for attempted suicide among patients with DSM-IV major depressive disorder. *Br J Psychiatry.* 2005;186:314-8.
  28. Binitie AO. A study of depression in Benin City, Nigeria [MD Thesis]. University of London; 1971. Cited by Otote DI, Ohaeri JU. Depressive Symptomatology and Short-Term Stability at a Nigerian Psychiatric Care Facility. *Psychopathology.* 2000;33:314-23.