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Research Article

EVALUATION OF ANXIETY AND DEPRESSIVE SYMPTOMS AMONG UNIVERSITY OF ABUJA MEDICAL STUDENTS

***Umarudeen Ajibola, M., Duru Stephanie, C., Umoru Daniel and Nwankwo Chima, J.**

Department of Pharmacology &Therapeutics, University of Abuja, Abuja, Nigeria

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Abstract

Anxiety and depression are highly prevalent psychiatric disorders across all age groups. Stressful environmental factors including harsh socio-economic, protracted academic calendars due to incessant school closures, and intensive academic engagement make incidence of these disorders to be on the increase among the youths and undergraduates of Nigerian universities. Medical training is known to be extra-intensive, often protracted, and stressful with University of Abuja not being an exception. But there has not been an evaluation of the prevalence of anxiety and depression among the medical students of the university, to the best of knowledge. The primary aim of this study, therefore, is to determine the prevalence of anxiety and depressive symptoms among these students. A cross-sectional survey was conducted among 112 University of Abuja medical students using a hardcopy questionnaire derived from the Hamilton anxiety rating scale (HAM-A) and Hamilton depression rating scale (HAM-D). Our findings indicate the study participants aged from 15 to 28 years old with about 63% of them being 25 – 28 years of age. More of the participants were female, Christian by faith, and of the minority Nigerian ethnicities. More than half of the responders were urban dwellers; have less than 5 siblings and overwhelming majority (87.50%) came from unbroken families. Overall, 33 (29.46%) and 36 (32.14%) of sample population exhibited anxiety and depressive symptoms, respectively. Anxiety evaluation indicates 28 (25%) of the responders scored for mild anxiety while 5 (4.46%) scored for moderate to severe anxiety. Of 33 persons exhibiting anxiety, 13 (39.39%) were male and 20 (60.60%) were females, with 2 males and 3 females exhibiting moderate to severe anxiety. The most frequently cited individual anxiety symptoms by the participants are as follows: worry (combined) 19%, insomnia 19%, and palpitations17%. More than half (21) of the 36 persons who exhibited depression exhibited mild, 10 (27.78%) moderate, and 5 (13.89%) exhibited severe depressive symptoms. 20 (55.55%) of the 36 total depression scores were female with 4 of these and only 1 male scoring for severe depression. severe worry. The most frequent depression symptoms in the survey were inability to focus (distractibility) (24%), lonely feeling (22%), anger (combined) (15%), and sorrowfulness (11%). Fifty-five (55) participants (49.12%) indicated their anxiety and depressive symptoms have impacted negatively on their studies and nineteen (19) (!7%) indicated they had had to use psychoactive substances such as alcohol, coffee, and energy drinks to get relief from their symptoms. The survey shows the prevalence of anxiety and depressive symptoms is high among University of Abuja medical students. Governments, University managements, families and students alike need to take proactive steps to mitigate the immediate and long-term effects of these disorders.

Keywords: Mood disorders, U. of A., Undergraduate, Survey, HAM-A, HAM-D.

INTRODUCTION

Mood disorders – anxiety and depression – are a highly prevalent psychiatric disorders globally and the most frequent diagnosis in mental facilities – presenting a huge socio-economic burden on the society (1, 2, 3). Anxiety alone or with depression often manifests as a chronic malady with clinical features dominated with undue fearfulness, tension, palpitations, dizziness, apprehension, tension headaches, stomachache, fatigue, and sleeplessness. Therapeutic intervention may be required when the disorder becomes disabling,or apprehension becomes severe. When depression is present there may be, in addition to above-stated features, manifestation of negative rumination, worthlessness, helplessness, guilt, sleep disturbance, diurnal mood variation, loss of energy, and impaired concentration, hallucinations and delusions, and suicidal ideation.. Therapeutic intervention may be required when the disorder becomes disabling, or apprehension becomes severe (4,5, 6). In Nigeria, mood disorders are among the commonest psychiatric disorders in the general population with a life risk of affliction ranging from 5.7% to as high as 30% (7, 8, 9) with significant onset of disorder among the young age groups.

Corresponding Author:** ***Umarudeen Ajibola, M.,
Department of Pharmacology &Therapeutics, University of Abuja, Abuja, Nigeria

In the same vein, the incidence of mental disorders is on the increase among students in Nigeria just like in other university students worldwide. Factors suggested in the literature that predispose Nigerian students to higher risk of mental disorders include excessive academic workload, financial constraints, non-conducive accommodation and learning environments, relocation from home, competitiveness, and sleep deprivation. The coincidence of these factors with the critical time of adolescence to young adulthood transition makes this phase of life vulnerable to developing mental disorders. from adolescence to young adulthood. A study conducted by Frank-Briggs & Alikor (2010) among secondary school student in Nigeria showed that 91 (10.28%) of 885 students interviewed met criteria for diagnosis of either anxiety or depression (10). Another study conducted by Bella & Omigbodun (2009) among University of Ibadan students, South-West, Nigeria, showed lifetime and 12-month prevalence of 9.4% and 8.5% respectively for social phobia, a type of anxiety disorder, among the undergraduates (11). Previously, similar studies conducted among Nigerian medical and paramedical students have indicated much higher prevalences of anxiety and depression– possibly because of more intensive academic rigours these sets of students are subjected to (12, 13, 14). The reported higher prevalence of these disorders among medical students from previous surveys is a pointer to the need to conduct similar studies on all students generally, and medical

students, operating from the knowledge that candidates who qualify for any of these disorders from such survey can then be recommended for relevant therapeutic interventions to mitigate disease progression (15, 16). University of Abuja medical students are no exception to the rigorous academic calendars engendered by the nature of medical training and scholarship. But there has not been any survey to assess the presence of anxiety and depression symptoms among these students and this study, therefore, is to carry out a survey to determine the levels of features of these mood disorders among them by the Hamilton anxiety rating scale (HAM-A, or HARS) and Hamilton depression rating scale (HAM-D or HDRS) for survey data collection. Both scales are simple, efficient, and designed to measure anxiety and/or depression in adults. Among the first of its kind, HAM-A is a clinician-based questionnaire originally designed to evaluate the severity of anxiety symptoms in primary anxiety states as opposed to anxiety state secondary to an underlying pathology. It consists of 14 symptom-defined parameters covering both somatic and psychological symptoms. It is regarded as is regarded as the standard rating scale of anxiety against which newer anxiety scales are validated and nowadays widely deployed to evaluate anxiety symptoms of varying sources (17, 18, 19, 20). Like HAM-A, HAM-D or HDRS is a health-professional-administered inventory consisting of about 17 or 21 parameters used in quantifying depressive symptoms or evaluating recovery in already diagnosed patents. This scale that used to be the gold standard for measuring depressive symptoms for more than four decades is still being widely used for the evaluation of antidepressant efficacy of drugs in clinical trials (21, 22, 23).

METHODOLOGY

Study area and design

The survey took place in the University of Abuja, Giri-Airport Road, Abuja from March to April 2023. University of Abuja is cited in the Federal Capital Territory of Nigeria. The University presently boasts of two campuses, 12 Faculties, a student population of close to 60, 000 and a staff strength of over 3, 000. The study was a cross sectional survey during which hard copies of HAM-A derived questionnaires were administered by members of the research team to one hundred and twelve (112) second – sixth year medical students atthe University who volunteered to take part in the study. Utmost confidentiality was ensured throughout the study. In addition to respondents' biometrics, fourteen symptom-defined anxiety-related parameters covering both psychological and somatic symptoms were captured. These comprise anxious mood; tension (including restlessness, fatigability, startle response); fears (including of the dark/ strangers/crowds); sleep difficulty (insomnia); 'cognitive'/ 'intellectual' (poor memory/difficulty concentrating); depressed mood (including anhedonia); somatic symptoms (including aches and pains, stiffness, bruxism); sensory (including tinnitus, blurred vision); cardiovascular (including tachycardia and palpitations); respiratory (chest tightness, choking); gastrointestinal (including irritable bowel syndrome-type symptoms); genitourinary (including urinary frequency, loss of libido); autonomic (including dry mouth, tension headache) and observed behaviour at interview (restless, fidgety, etc.). Each item is scored on a basic numeric scoring of 0 (not present) to 4 (severe): >17/56 is taken to indicate mild anxiety; 25–30 is considered moderate–severe.

HAM-D derived questionnaires were also concurrently administered to the same set of volunteers on the first 17 depression-related parameters. Responses were scored between 0 and 4 points. Research interviewers also took note of the level of restlessness or agitation on the part of the volunteers during the interview. The 17 items measure the severity of depressive symptoms and as examples the interviewer rates the level of agitation clinically noted during the interview or how the mood is impacting on an individual's work or leisure pursuits. Scoring was based on the 17-item scale and scores of 0–7 were considered as being normal, 8–16 suggest mild depression, 17–23 moderate depression and scores over 24 were indicative of severe depression (23); the maximum score being 52 on the 17-point scale.

RESULTS

Our findings (Table 1) indicate the study participants aged between from 15 to 28 years old with about 63% of them being 25 – 28 years of age. More of the participants were female and Christian by faith and of the minority Nigerian ethnicities. More than half the responders were urban dwellers; have less than 5 siblings and overwhelming majority (87.50%) came from unbroken families. Overall, the survey outcome (Figure I) indicates 33 (29.46%) and 36 (32.14%) of sample population exhibited anxiety and depressive symptoms, respectively. Anxiety evaluation indicates28 (25%)of the responders scored for mild anxiety while 5 (4.46%) scored for moderate to severe anxiety. Of 33 persons exhibiting anxiety, 13 (39.39%) were male and 20 (60.60%) were females, with 2 males and 3 females exhibiting moderate to severe anxiety. The most frequently cited individual anxiety symptom by the participants are as follows: worry (combined) 19%, insomnia 19%, and palpitations17% (Figure II) More than half (21) of the 36 persons who exhibited depression exhibited mild,10 (27.78%) moderate, and 5 (13.89%) exhibited severe depressive symptoms. 20 (55.55%) of the 36 total depression scores were female with 4 of these and only 1 male scoring for severe depression. severe worry. The most frequent depression symptoms in the survey (Figure III) were inability to focus (distractibility)(24%), lonely feeling (22%), anger (combined) (15%), and sorrowfulness (11%). Coincidently 55 participants (49.12%) indicated their anxiety and depressive symptoms have impacted negatively on their studies.

Table 1. Participants' demographic variables

Demographic variables		Frequency (n=112)
Age	15 – 19	8 (7.14%)
	20 - 24	33 (29.46%)
	25 - 28	71 (63.39%)
Gender	Male	51 (45. 45%)
	Female	61 (54.46%)
Religion	Christianity	94 (83.90%)
	Islam	17 (15.17%)
	others	1 (0.89%)
Ethnicity	Igbo	30 (26.70%)
	Hausa	5 (4.46%)
	Yoruba	28 (25.00%)
	Others	47 (36.61%)
Family abode	Urban	64 (41.96%)
	Suburban	41 (36.61%)
	Rural	7 (6.25%)
No of Siblings	3-5 Siblings	62 (55.36%)
	> 5 siblings	20(17.86%)
Separated parents	Yes	14 (12.50%)
	No	98 (87.5%)

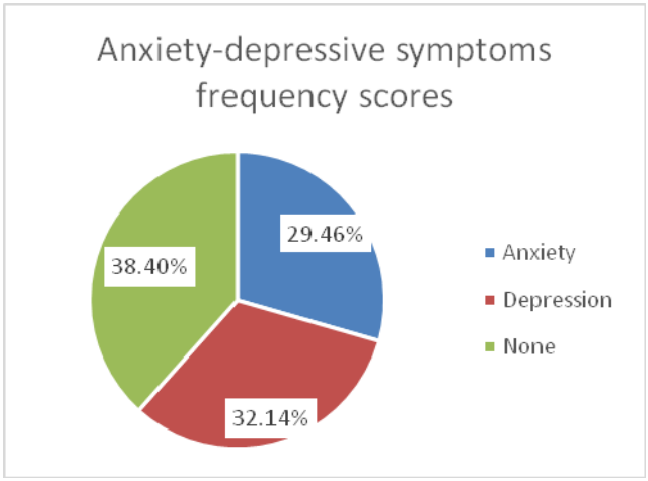

Figure I. Anxiety/depression symptom frequency scores

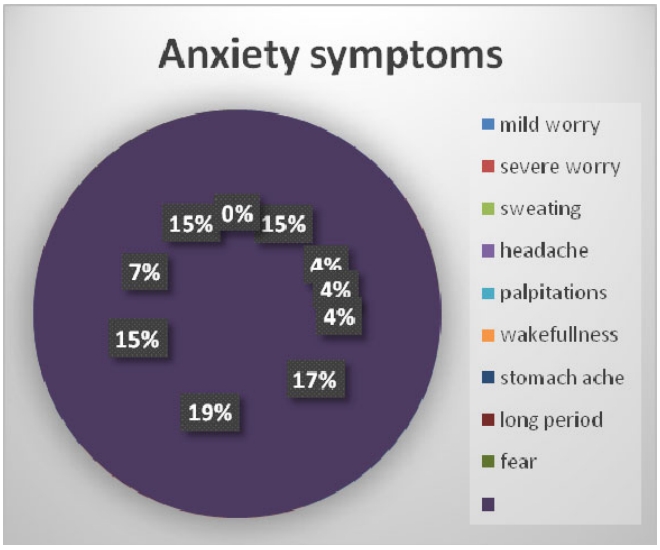

Figure II. Anxiety symptom distribution frequency

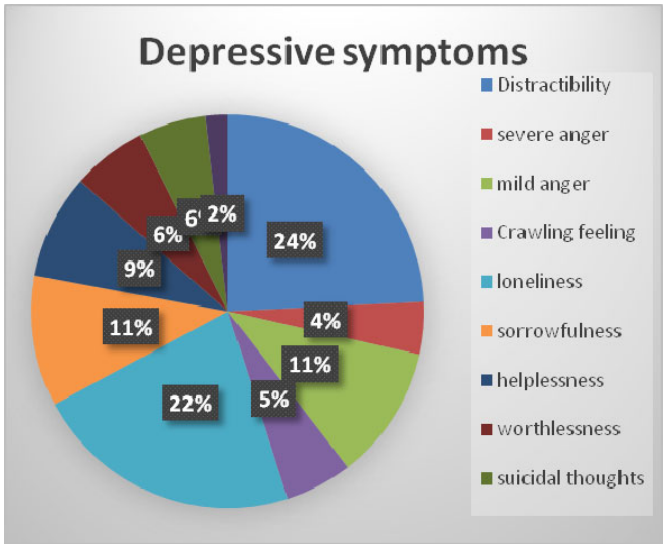

Figure III: Depressive symptom frequency distribution

DISCUSSION

The HAM-A and HAM-D rating scales adopted in this study for the evaluation of anxiety and depressive symptoms of are simple, fast, reliable, sensitive, and efficient for the intended purposes (29, 30). This study indicates anxiety and depressive symptoms are highly prevalent among the University of Abuja medical students. This is about the first of such reports aimed primarily at evaluating the prevalence of these mood disorders in the University. The predisposing factors to these disorders may be physical and psychological stress arising from a plethora of factors. Several studies imply stress to be causally related to anxiety and depression (24, 25). Life stressors may include financial constraints occasioned by harsh national and family socio-economic realities, intensive intellectual workload, protracted academic calendars occasioned by incessant university closures, uncertainty about the future, and ambitious personal drives to attain set goals. The high prevalence reported in this study is agreement with similar previous studies of Anosike *et al.* (2022) (15) reporting prevalence of 71.8%, for depression and 61.7% for anxiety among participants in a Nigerian university, of Falade *et al.* (2020) (14) reporting combined prevalence of 25% for both anxiety and depression among medical students in some public and private universities, and of Aluh *et al.* (2020) (12) showing prevalence of comorbid anxiety and depression of 63.5% and 44.6%, respectively, among undergraduate pharmacy students in Nigeria.

The preponderance of both anxiety and depressive symptoms in the female gender in the study is in agreement with previous studies by Gupta *et al.* (2021) where female gender was actually listed as a risk factor to anxiety/depression (26), by Mirzaei *et al.* (2019) where prevalence of depressive symptoms of 36.5% and 23.7% prevalence was found among Iranian women and men, respectively (27), and by Sloan& Kornstein (2003) where higher prevalence of depression and greater antidepressant response were observed in women (28). Female gender bias towards anxiety and depressive symptoms is said to be related to the female hormonal profile which undergoes a lot of cyclical changes and physiological perturbationsin the female lifespan (31, 32, 33). Factors to alleviate the high prevalence of anxiety and depressive symptoms found in this survey must be wholistic approach by the government, university managements, families and the students themselves. Government must make it a policy to embark on aggressive economic drive and socio-economic empowerment of the families. Education generally, and particularly, university education must be adequately funded by the governments at various levels with effective subsidy to reduce the financial constraints of students. School fees should be significantly subsidized instead of the contemplated hike in virtually all school fees in order not to raise the psychological stress levels of these poor students. University staffs should be well renumerated to forestall incessant school closures that often impose psychological stress on the students. Students' affairs office should be revitalized to meet the increasing welfare needs of the growing population of students. Additionally, staff-student mentorship should be encouraged so that more personalized attention, monitoring, and guidance can be given to individualized challenges of the students. Students found to manifest anxiety and depressive symptoms should be counselled to on the to take life issues calmly and advised to seek medical consultation soon as possible. Student counselling as well as monitoring is necessary to forestall possible negative fallouts from their anxiety and depressive symptoms – including substance abuse which has been found to be significantly associated with anxiety and depression (34, 35). This step was taken during this survey as all participants who qualified for anxiety and depression were counselled immediately on the need to take life challenges easy and to

seek medical attention thereafter. Limitations to this study include the not too big sample size used in the survey. HAM-D sensitivity has been crticised for being weak towards a few individual mood parameters e.g., anhedonia (22), and on its effectiveness being subject to the level of training of health professional interviewer and the provision of structured interview guide (36, 37).

Conclusion

This survey has shown anxiety and depressive symptoms are highly prevalent among University of Abuja medical students. Steps should be taken by governments, families and victims to mitigate the long-term effects of these mood disorders.

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