Knowledge and perception of major depression among full-time undergraduate clinical students in a Federal University

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ABSTRACT

Background- Prevalence of major depression among university students in Western Africa is 25.2%. The objectives of this study were to determine the level of knowledge of major depression among undergraduate clinical students. This will include the causes, risk factors, symptoms, and treatment options available to depressed patients; to ascertain the perception of clinical students towards depression i.e., treatment options and to determine the preventive measures against any incident of suicide as a result of depression in the University community.

Methods- This study was a descriptive cross-sectional prospective study. Validated structured questionnaires were self -administered to 275 undergraduate clinical students.

Results- Majority of respondents (64.3%) were 18-25 years of age, 71.4% were males. About 66.5% of the respondents said major depression is a mental condition characterized by severe feelings of hopelessness and inadequacy. About 62.5% said abuse of alcohol or recreational drugs is a risk factor of major depression. About 85.9% of the respondents know the treatment options for major depression.

Conclusion- Majority of the respondents have good level of knowledge and perception of major depression. Measures to be taken in preventing this mental disorder in the University includes inculcating psychological living into the curriculum and improvement in the teaching and learning condition of students. Coordinated mental health services to meet the needs of university students is recommended.

Keywords: Major depression, undergraduates, perception, antidepressants

1. INTRODUCTION

Major depression is a mental disorder with rising concern all over the world. The recent COVID-19 pandemic which took the lives and livelihood of millions also threw several persons into depression. Prevalence of major depression among university students in Western Africa is 25.2% [1] which is similar to report from another study among university students in low- and middle-income countries [2]. Major depression may also develop without a specific stressor, characterized by marked loss of interest or pleasure in nearly all activities interfering significantly with the individual's quality of life [3]. Depression is salient and may be difficult to diagnose.
Therefore screening is recommended. Clinically, there is a disturbance in serotonin or 5- hydroxy tryptamine (5-HT) activity in the central nervous system; other neurotransmitters involved with depression are norepinephrine (NE), dopamine (DA), glutamate, and brain-derived neurotrophic factor (BDNF) [4]. Treatment options for patients living with major depression include pharmacotherapy [5], exercise [6], psychosocial therapy electroconvulsive therapy, phototherapy and alternative therapy using natural products like St. John's wort [7,8]. Major depression is a topic in pathophysiology and therapeutic courses for clinical undergraduate students in Nigerian Universities. A proper knowledge of this subject matter is very crucial because prevalence of depression is significant among youths and adults. There is a high rate of suicide in Nigeria and incidents of suicide [9], as a result of depression have also occurred in the University community[10]. The objectives of this

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study were to determine the level of knowledge of major depression among undergraduate clinical students. These include the causes, risk factors, symptoms, and treatment options available to depressed patients; to ascertain the perception of clinical students towards depression incidents if any i.e., treatment options available to persons living with major depression; to determine the preventive measures undertaken by clinical students to prevent any incident of suicide as a result of depression in the University community.

2. MATERIALS AND METHODS

2.1 Materials
2.1.1 Instrument for data collection
The validated structured questionnaire comprised the following sections;
Section A -Demographic characteristics, which included age, gender, marital status, faculty, academic level, and religion.
Section B- made up of 12 questions on Knowledge of major depression, which included the definition, causes, symptoms, diagnosis and treatment of major depression. Good knowledge of the study population was marked at 50% response rate.
Section C- made up of 6 questions on perception, which included attitude towards the treatment options available and how to prevent future occurrences of major depression in the University community.

2.2 Methods
2.2.1 Design
This study was a descriptive cross-sectional prospective study carried out between June and September 2019.

2.2.2. Setting
This study was conducted in the University of Benin main campus. The University, which started as an Institute of Technology and funded by Mid-Western State Government, was accorded the status of a full-fledged University by the National Universities Commission (NUC) on 1st July, 1971. At the request of the State Government, the University was taken over by the Federal Government and became a Federal University on 1st April, 1975. It has two campuses presently; Ugbowo and Ekehuan. The University of Benin has various faculties, schools, centres which include Faculties of Agriculture, Arts, Education, Engineering, Law, Life sciences, Management sciences, Pharmacy, Physical sciences, Social sciences, Environmental sciences, and Veterinary medicine; Centre for Entrepreneurship Development, Centre for Forensic Programmes and DNA Studies; College of Medical sciences (which consists of School of Medicine, School of Basic Medical science, and School of Dentistry). This research was carried out at the main campus (Ugbowo campus) where clinical students receive their lectures.

2.2.3 Study population
Included full-time undergraduate clinical students from the faculty of Pharmacy, department of Optometry, school of Medicine and Surgery, and the school of Dentistry across levels undergoing clinical clerkship. Clinical clerkship begins from their fifth year up to their final year (sixth year) for pharmacy and optometry students while clinical students from the School of Dentistry and School of Medicine commence in their fourth year to final year. Clinical clerkship entails student eliciting patient histories, completing physical examinations, retrieving and interpretating laboratory investigations, developing a patient care plan, writing progress notes, evaluation of patients' treatment plan and assisting in several medical procedures, patient education and counselling. Clinical students interact with ambulatory and in-patients under the supervision of hospital-based preceptors and university lecturers. Male and female clinical students from Faculty of Pharmacy, department of Optometry, school of Medicine and School of Dentistry were included in this study. All other undergraduate students, post graduate students and those clinical students that did not give consent were excluded.

2.2.4 Sample size determination
The total number of full-time undergraduate clinical students in the 2018/2019 academic session was eight hundred and ninety (n=890). The sample size was then calculated and two hundred and sixty-nine (269) was obtained.

2.2.5 Sampling technique and data collection
Students who met our inclusion criteria were randomly selected, the distribution of respondents from the departments included is illustrated in Table 1. A validated structured self-administered questionnaire was used to obtain data from the respondents. To make room for unavoidable losses, the total number of questionnaires administered was two hundred and seventy-five (275).

2.2.6 Ethical consideration
Informed consent was obtained from the respondents. They were made to understand that participation was voluntary and there was no consequence for non-participation. All information obtained were kept confidential.

Table 1: Percentage distribution of respondents

Level	Frequency	Percentage (%)
Pharmacy	85	31.6
Optometry	38	14.1
Medicine	119	44.3
Dentistry	27	10.0
Total	269	100.0

2.3 Data analysis
Data were collected and organized using Microsoft Excel and analyzed using SPSS (Statistical package for social sciences) version 21. Descriptive statistics were carried out on all variables, and the results were presented as frequency of responses and the proportion (in percentage) of the overall population.

3. RESULTS
A response rate of 97.8% was obtained from the students recruited in this study. More of the respondents were males, details of their demographic characteristics are illustrated in Table 2.

Table 2: Table of demographic characteristics of respondents

Age (years)	Frequency	Percentage (%)
18 and below	0	0%
18-25	173	64.3
26-35	96	35.7
36 and above	0	0
Gender		
Male	192	71.4
Female	77	28.6
Marital Status		
Single	257	95.5
Married	12	4.5
Divorced	0	0
Department/ Faculty		
Pharmacy	85	31.6
Optometry	38	14.1
Medicine	119	44.3
Dentistry	27	10.0
Level		
400L	51	19.0
500L	73	27.1
600L	145	53.9
Level		
Christianity	238	88.5
Islam	31	11.5
African Traditional Religion	0	0

Table 3: Respondents' knowledge of major depression

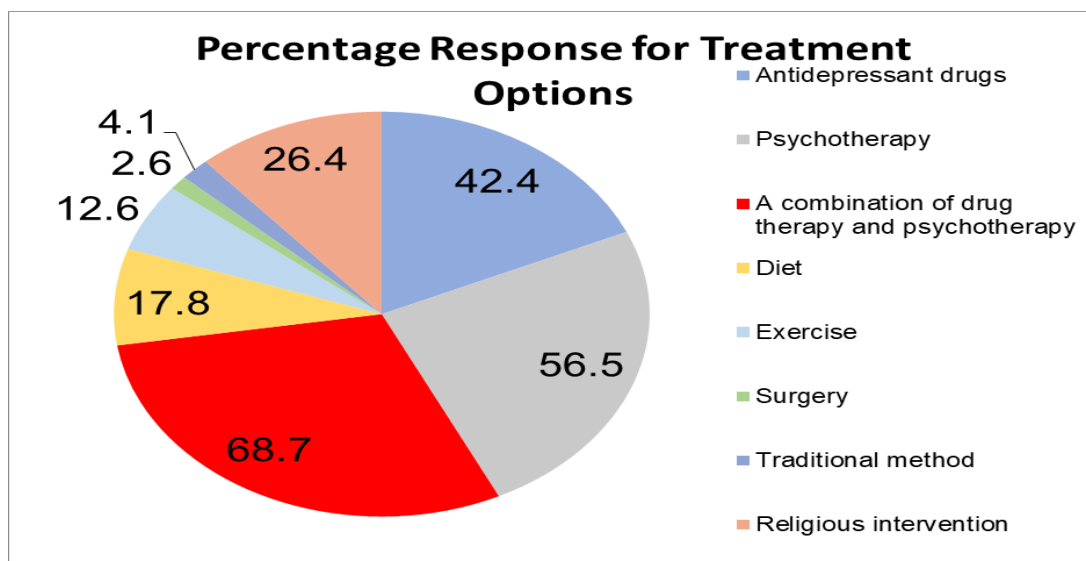| Questionnaire Item	Agree		Undecided	
	n	%	n	%
It is a mental condition characterized by severe feelings of hopelessness and inadequacy, typically accompanied by a lack of energy and interest in life	179	66.5	90	33.5
It is a common mental disorder, characterized by persistent sadness and a loss of interest in activities that you normally enjoy, accompanied by an inability to carry out daily activities, for at least two weeks	144	53.5	125	46.5
Major depression can be?				
Mild	113	42.0	156	58.0
Moderate	162	60.2	117	39.8
Severe	204	75.8	65	24.2
Risk factors of Major depression				
Family history	153	56.9	116	43.1
Genetic factors	98	36.4	171	63.6
Environmental factors	146	54.3	123	45.7
Stressors	183	68.0	86	32.0
Negative life events	101	37.5	168	62.4
Loneliness	164	60.9	105	39.1
Bereavement	113	42.0	156	58.0
Abuse of alcohol or recreational drugs	168	62.5	101	37.5
Chronic illness such as cancer, stroke, chronic pain or heart disease	117	43.5	152	56.5
Symptoms of major depression				
Restlessness	153	56.9	116	43.1
A change in appetite	78	29.0	191	71.0
Guilt or hopelessness	169	59.1	100	37.2
A loss of energy	105	39.0	164	61.0
Sleeping more or less	68	25.3	201	74.7
Anxiety	153	56.9	116	43.1
Reduced concentration	146	54.3	123	45.7
Indecisiveness	162	60.2	107	39.8
Feeling of worthlessness	116	43.1	153	56.9
Thoughts of suicide	187	69.5	82	30.5
Loss of interest or pleasure	94	34.9	175	65.1
Increased fatigue	111	41.3	158	58.7

Figure 1: Respondents' knowledge of treatment of Major depression

3.1 Knowledge of Major Depression
About 66.5% of the respondents are of the opinion that major depression is a mental condition characterized by severe feelings of hopelessness and inadequacy, typically accompanied by lack of energy and interest in life, while 33.5% of the respondents are undecided (Table 3). Also,75.8% of the respondents are of the opinion that major depression can be severe, while 56.5% of the respondents are of the opinion that major depression runs in some families. About 62.5% of the respondents are of the opinion that abuse of alcohol or recreational drugs is a risk factor of major depression, while 43.5% of the respondents said chronic illness such as cancer, stroke, chronic pain or heart disease could be a risk factor of major depression. Most of the respondents reported that thought of suicide is a symptom of major depression while 85.9% of the respondents are of the opinion that major depression is curable. Figure 1 shows the knowledge of treatment options for major depression.

3.2 Perception of Major depression
Respondents' perception on five percent rating of undergraduate suffering from a major depression shows that all the 84.4% of the respondents are of the opinion that five percent of all undergraduate students will suffer a major depression. Respondents' perception on the action engaged in if noticed that a friend was depressed shows 97.0% would encourage him/her to ask for help. Only 52.0% of the respondents are of the opinion that they would ask help from a medical doctor, others said they will refer the student to his/her parents.

4. DISCUSSION
Major depression is a mental disorder that impacts an individual's quality of life therefore students should be educated about depression to improve recognition and diagnosis. However, clinical assessment is important for appropriate diagnosis and treatment [11, 12]. Clinical students who participated in this study displayed a good knowledge of major depression, this finding is similar to another study by Mulango, *et.al*., (2018) [13] on knowledge, attitude and practices of depression of health care providers in Cameroon. In this study majority of respondents agreed that loneliness is a sign of major depression, this is similar to another study carried out by Peltzer, *et.al*., (2014) [14] were individuals reported less intimacy in their relationship, they experienced loneliness and depression, and they were less satisfied with their life in general. According to Eisenberg, *et.al.*, (2007) [15], loneliness and sadness are major signs of depression. Feelings of loneliness in late adolescents are typically associated with emotional distress and often predict later internalizing disorders such as depression [16]. Clinical undergraduate students included in this study said academic work is not a predisposing factor for major depression. A Turkish study reported high prevalence of depression among older undergraduate students [17]. This suggests the need for improved counseling services in universities especially for undergraduate students. Majority of the respondents have good knowledge of most symptoms of major depression and available treatment options. This finding is similar to the report of health care providers which agreed that major depression can be treated with pharmacological methods and psychotherapy [13]. On the items developed for

perception of depression amongst clinical undergraduates, it was observed that when students notice that friends were depressed, they would encourage him/her to ask for help, and some opinions regarding who to ask help from include; parents/guardians, counsellors, medical doctors or other healthcare providers. About 66.2% of the respondents said embarrassment may be a strong retardant, inhibiting persons from seeking help for self or friend when faced with major depression. Majority of the respondents were of the opinion that persons affected should have resolute strength of will to fight depression. Considering the measures to be taken in preventing future occurrences of major depression in University of Benin, it was gathered that; inculcating psychological living into the University curriculum as a bid to aid students when faced with psychological issues which may lead to major depression amongst undergraduates, having a good spiritual relationship with God Almighty, improving the services offered by guidance and counseling departments in the university, improvement in the teaching and learning condition of students by the universities administrative bodies are some measures that can be taken to curtail the occurrence of depression.

5. CONCLUSION

Majority of the respondents have a good level of knowledge and perception of major depression.
Students were seen to be aware of the signs and symptoms of major depression but unaware of the causes of major depression. The respondents know that major depression can be cured by properly involving the appropriate personnel and treatment options. Family history, environmental factors, stressors, loneliness and abuse of alcohol or recreational drugs were identified as possible risk factors of major depression amongst undergraduate students. Clinical students may serve as key players in educating the wider population of the University on possible preventive measures as well as signs, symptoms to aid the prevention and early detection of depression. Coordinated mental health services to meet the needs of university students is recommended.

Limitations of this Research
The study limitation is also concerned with the extrapolation of the findings to a more heterogeneous population. It is unknown to what extent these findings can be generalized to part-time or non-resident students.

Conflict of interest statement
There is no potential conflict of interest or any financial or personal relationships with other people or organizations that could inappropriately bias the conduct and findings of this study titled 'Knowledge and perception of Major Depression among Full-Time Undergraduate Clinical Students in a Federal University'

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