

## Cross-Sectional Study of Depression and Suicidality Among College Students in University of Port Harcourt, Nigeria

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### Abstract

### Original Research Article

**Background:** Depression as it were having been defined as a common and serious medical illness that negatively affects how you feel, the way you think and how you. The WHO in a fact sheet report has stated that depression is a common mental disorder and one of the main causes of disability worldwide. They added that globally, an estimated 264 million people are affected by depression. In 2020, an estimated 21.0 million adults in the United States had at least one major depressive episode. The pressure to perform well in school against all odds induces elements of depression when the results are not proportional to the efforts put into the study. Hence, this study was done to assess the level depression and suicidality amongst college students in the University of Port Harcourt, Rivers State, Nigeria.

**Materials and Methods:** The study was descriptive cross-sectional with a total of 104 students who were recruited conveniently from the College of Health Sciences, University of Port Harcourt, Rivers State, Nigeria. The research instrument was a close-ended questionnaire structured in four parts: socio-demography, depression, coping, and suicidality adapted from the Beck-depression-inventory, COPE inventory tool, and Ask Suicide-Screening Questions (ASQ) tool. The statistical analysis was done using statistical package for social sciences (SPSS) version 23. The descriptive statistics was done using simple descriptive tool, chi square test was used to test for association between variables with the confidence interval 95%, p at 0.05 and power of 80. **Results and Discussions:** Age group (yrs) was the only significant socio-demographic characteristic that was significantly associated ( $X^2 = 39.102$ ,  $P=0.001$ ) with depression status. The depression status of the participants showed that those who had Mild mood disturbance were 5(4.8%), Borderline clinical depression 4(3.8%), Moderate depression 10(9.6%), Severe depression 3(2.9%), and Extreme depression 6(5.8%). The study showed that 14(13.5%) who had Mild mood disturbance, Borderline clinical depression, Moderate depression, Severe depression, and Extreme depression also thought of death, the students who had never had depressive symptoms and those who were depressed and contemplated death differed significantly ( $X^2 = 82.540$ ,  $P=0.001$ ). **Conclusions:** The study showed that 14(13.5%) who had Mild mood disturbance, Borderline clinical depression, Moderate depression, Severe depression, and Extreme depression also thought of death, the students who had never had depressive symptoms and those who were depressed and contemplated death differed significantly ( $X^2 = 82.540$ ,  $P=0.001$ ); The study revealed that 1 in 2 students on campus are depressed, ranging from a mood disturbance to extreme depression; 2 in 13 students think about death, want to harm self, and have a suicide plan; Furthermore, 2 in 19 students think about suicide, and 1 in 7 students have attempted suicide.

**Keywords:** Anatomical investigation, Depression, Suicidality, Coping, & College students.

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## INTRODUCTION

The aspect of anatomy concerned with depression is neuroanatomy, which takes into consideration the entire structure of the brain [1, 2]. The brain is a complex structure in its architecture and functionality. The various structures and parts of brain

relate to their function [2, 3]. The very part of the brain responsible for depression, suicidality, and coping are the amygdala, hippocampus, and the dorsomedial thalamus. These parts accounts for the emotional expressions [4, 5]. The expressions of emotions seen in people are a reflection of the activities and impulses that are generated on these parts of the brain. Therefore,

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any structural or chemical distortion of these regions produces behaviours that are categorized as psychiatric behaviours [5, 6]. There are certain factors that contribute to anatomical distortions of these regions such as stress, pressure, head injury, trauma etc. [4-7].

Depression (major depressive disorder) as it were having been defined as a common and serious medical illness that negatively affects how you feel, the way you think and how you act. There are identified risk factors for depression such as: Biochemistry, Genetics, Personality, and Environmental factors [8-10]. The WHO in a fact sheet report has stated that depression is a common mental disorder and one of the main causes of disability worldwide. They added that globally, an estimated 264 million people are affected by depression [11]. In 2020, an estimated 21.0 million adults in the United States had at least one major depressive episode. This number represented 8.4% of all U.S. adults. And this prevalence was highest among individuals aged 18-25 (17.0%), this is one of the reasons this age group is targeted for survey in the study [10]. A study on depression amongst Nigerian University undergraduates showed the following prevalence values for depression 37.0%, 15.7%, 3.9%, and 1.6% for mild, moderate, moderately-severe, and severe depression, respectively, using the PHQ-9 scoring system with a cut off score of 5 [12]. A study was done in a private tertiary institution in India and it showed a prevalence value of 49.1% and was considered to be high [13].

The Nigerian university environments have continuously grown into fight or die academic system that does not cater for the weak students in the university [14]. The curriculum is designed in such a way that it does not allow for flexibility as such, students fight to meet up the standard, and those who can't keep up the pace fail, repeat or flushed out of the system [15]. The level of pressure that students face on campus whilst studying is enough to induce depression particularly when the students do not seem to be meeting up with process, volume of academic work, poor results, lack of funds, underlining health conditions etc. [16, 17]. This pressure becomes worse for the students in the College of Health Sciences (Anatomy, Physiology, Medical Biochemistry, Medicine & Surgery, Pharmacy, Nursing etc.). The pressure to perform well against all odds induces elements of depression when the results are not proportional to the efforts put into the study [18, 19]. Hence, this study was done to assess the level depression and suicidality amongst college students in the University of Port Harcourt, Rivers State, Nigeria.

This current study is not the first; there are previous studies on depression among university students across the globe [20-29].

## MATERIALS AND METHODS

The study was descriptive cross-sectional with a total of 104 students who were recruited conveniently from the College of Health Sciences, University of Port Harcourt, Rivers State, Nigeria. All students who are in the college were included in the study except those who are waiting to begin courses/lectures in the college. This study was done for duration 6 months June 2021-December, 2021. The research instrument was a close-ended questionnaire structured in four parts: socio-demography, depression, coping, and suicidality adapted from the Beck-depression-inventory, COPE inventory tool, and Ask Suicide-Screening Questions (ASQ) tool. The statistical analysis was done using statistical package for social sciences (SPSS) version 23. The descriptive statistics was done using simple descriptive tool; chi square test was used to test for association between variables with the confidence interval 95%, p at 0.05.

## RESULTS AND DISCUSSIONS

Below are the results presented in tables.

**Table 1: Descriptive statistics of socio-demographic characteristics**

Socio-demographics	Frequency	Per cent
Male	43	41.3
Female	56	53.8
I don't wish to disclose	5	4.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Marital status</b>		
Single/Never married	96	92.3
Married/cohabiting	8	7.7
Total	104	100.0
<b>Age Group (yrs)</b>		
21 - 30	96	92.3
31 - 40	6	5.8
41 - 50	1	1.0
51 - 60	1	1.0
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Religion</b>		
Christianity	92	88.5
Islam	11	10.6
Traditional worship	1	1.0
Total	104	100.0
<b>Number of children</b>		
None	97	93.3
1 - 3	7	6.7
<b>Total</b>	<b>104</b>	<b>100.0</b>

The most prevalent gender was the female with n (53.8%), marital status: single/never married was the 96(92.3%), age group 21 - 30yrs was the most prevalent, 97(93.3%) of the participants do not have any child.

**Table 2a: Descriptive statistics of variables**

Variable	Frequency	Per cent
<b>Sad feeling</b>		
I do not feel sad	66	63.5
I feel sad	20	19.2
I am sad all the time and I can't snap out of it	6	5.8
I am so sad and unhappy that I can't stand it	12	11.5
Total	104	100.0
<b>Discouragement</b>		
I do not particularly feel discouraged about the future	68	65.4
I feel discouraged about the future	17	16.3
I feel I have nothing to look forward to	9	8.7
I feel the future is hopeless and that things cannot improve	10	9.6
Total	104	100.0
<b>Failure</b>		
I do not feel like a failure	66	63.5
I feel I have failed more than the average person.	22	21.2
As I look back on my life, all I can see is a lot of failures	9	8.7
I feel I am a complete failure as a person	7	6.7
Total	104	100.0
<b>Feeling of guilt</b>		
I don't feel particularly guilty	80	76.9
I feel guilty a good part of the time	15	14.4
I feel quite guilty most of the time	8	7.7
I feel guilty all of the time	1	1.0
Total	104	100.0
<b>Punishment</b>		
I don't feel I am being punished	77	74.0
I feel I may be punished	18	17.3
I expect to be punished	6	5.8
I feel I am being punished	3	2.9
Total	104	100.0
<b>Disappointment</b>		
I don't feel disappointed in myself	74	71.2
I am disappointed in myself	17	16.3
I am disgusted with myself	11	10.6
I hate myself	2	1.9
Total	104	100.0
<b>Suicidal thoughts</b>		
I do not have thoughts of killing myself	75	71.4
I have thoughts of killing myself, but I would not carry them out	26	24.8
I would like to kill myself	3	2.9
<b>Total</b>	<b>104</b>	<b>100.0</b>

I do not feel sad 66(63.5%), I do not particularly feel discouraged about the future 68(65.4%), I do not feel like a failure 66(63.5%), I don't feel particularly guilty 80(76.9%), I don't feel I

am being punished 77(74.0%), I don't feel disappointed in myself 74(71.2%), I do not have thoughts of killing myself 75(71.4%) (Table 2a).

**Table 2b: Descriptive statistics of variables cont'd**

Variable	Frequency	Per cent
<b>Crying</b>		
I don't cry any more than usual	90	86.5
I cry more now than I used to	5	4.8
I cry all the time now	2	1.9
I used to be able to cry, but now I can't cry even though I want to.	7	6.7
<b>Total</b>	<b>104</b>	<b>100.0</b>

Variable	Frequency	Per cent
<b>Irritation</b>		
I am no more irritated by things than I ever was	59	56.7
I am slightly more irritated now than usual.	20	19.2
I am quite annoyed or irritated a good deal of the time.	20	19.2
I feel irritated all the time	5	4.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Interest</b>		
I have not lost interest in other people	80	76.9
I am less interested in other people than I used to be.	14	13.5
I have lost most of my interest in other people.	6	5.8
I have lost all of my interest in other people.	4	3.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Decision</b>		
I make decisions about as well as I ever could	70	67.3
I put off making decisions more than I used to.	20	19.2
I have greater difficulty in making decisions more than I used to.	8	7.7
I can't make decisions at all anymore.	6	5.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Worry about attraction</b>		
I don't feel that I look any worse than I used to	75	72.1
I am worried that I am looking old or unattractive.	11	10.6
I feel there are permanent changes in my appearance that make me look unattractive	13	12.5
I believe that I look ugly	5	4.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Work</b>		
I can work about as well as before	50	48.1
It takes an extra effort to get started at doing something.	29	27.9
I have to push myself very hard to do anything.	16	15.4
I can't do any work at all.	9	8.7
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Sleep</b>		
I can sleep as well as usual	80	76.9
I don't sleep as well as I used to.	13	12.5
I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.	6	5.8
I wake up several hours earlier than I used to and cannot get back to sleep.	5	4.8
<b>Total</b>	<b>104</b>	<b>100.0</b>

I don't cry any more than usual 90(86.5%), I am no more irritated by things than I ever was 59(56.7%), I have not lost interest in other people 80(76.9%), I make decisions about as well as I ever

could 70(67.3%), I don't feel that I look any worse than I used to 75(72.1%), I can work about as well as before 50(48.1%), I can sleep as well as usual 80(76.9%) (Table 2b).

**Table 2c: Descriptive statistics of variables cont'd**

Variable	Frequency	Per cent
<b>Tiredness</b>		
I don't get more tired than usual	80	76.9
I get tired from doing almost anything.	16	15.4
I am too tired to do anything.	8	7.7
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Appetite</b>		
My appetite is no worse than usual	84	80.8
My appetite is not as good as it used to be.	3	2.9
My appetite is much worse now.	14	13.5
I have no appetite at all anymore.	3	2.9
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Weight loss</b>		

Variable	Frequency	Per cent
I have not lost much weight, if any lately	78	75.0
I have lost more than five pounds.	12	11.5
I have lost more than ten pounds.	6	5.8
I have lost more than fifteen pounds.	8	7.7
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Health</b>		
I am no more worried about my health than usual	72	69.2
I am worried about physical problems like aches, pains, upset stomach, or constipation.	18	17.3
I am very worried about physical problems and it's hard to think of much else.	9	8.7
I am so worried about my physical problems that I cannot think of anything else.	5	4.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Interest in sex</b>		
I have not noticed any recent change in my interest in sex	73	70.2
I am less interested in sex than I used to be.	23	22.1
I have almost no interest in sex.	4	3.8
I have lost interest in sex completely	4	3.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Satisfaction</b>		
I get as much satisfaction out of things as I used to	70	67.3
I don't enjoy things the way I used to.	14	13.5
I don't get real satisfaction out of anything anymore.	10	9.6
I am dissatisfied or bored with everything.	10	9.6
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Blame</b>		
I don't feel I am any worse than anybody else	69	66.3
I am critical of myself for my weaknesses or mistakes.	17	16.3
I blame myself all the time for my faults.	13	12.5
I blame myself for everything bad that happens.	5	4.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Depression status</b>		
Normal	76	73.1
Mild mood disturbance	5	4.8
Borderline clinical depression	4	3.8
Moderate depression	10	9.6
Severe depression	3	2.9
Extreme depression	6	5.8
<b>Total</b>	<b>104</b>	<b>100.0</b>

I don't get more tired than usual 80(76.9%), My appetite is no worse than usual 84(80.8%), I have not lost much weight, if any lately 78(75.0%), I am no more worried about my health than usual 72(69.2%), I have not noticed any recent change in my interest in sex 73(70.2%), I get as much satisfaction out of things as I

used to 70(67.3%), I don't feel I am any worse than anybody else 69(66.3%), Depression status [Normal 70(73.1%), Mild mood disturbance 5(4.8%), Borderline clinical depression 4(3.8%), Moderate depression 10(9.6%), Severe depression 3(2.9%), Extreme depression 6(5.8%) (Table 2c).

**Table 3: Descriptive statistics for suicidality**

Variables	Frequency	Per cent
<b>Think of death</b>		
No	90	86.5
Yes	14	13.5
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Think about suicide</b>		
No	94	90.4
Yes	10	9.6
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Have a suicide plan</b>		
No	90	86.5

Variables	Frequency	Per cent
Yes	14	13.5
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Suicide attempt</b>		
No	91	87.5
Yes	13	12.5
<b>Total</b>	<b>104</b>	<b>100.0</b>

The result showed that 14(13.5%) of the participants think of death, think about suicide

10(9.6%), Have a suicide plan 14(13.5%), Suicide attempt 13(12.5%) (Table 3).

**Table 4: Descriptive statistics for coping**

Coping	Frequency	Per cent
<b>I've been turning to work or other activities to take my mind off things</b>		
I haven't been doing this at all	41	39.4
I've been doing this a little bit	26	25.0
I've been doing a medium amount	17	16.3
I've been this a lot	20	19.2
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>Been concentrating my efforts on doing something about the situation I'm in</b>		
I haven't been doing this at all	35	33.7
I've been doing this a little bit	23	22.1
I've been doing a medium amount	12	11.5
I've been this a lot	34	32.7
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been saying to myself "this isn't real".</b>		
I haven't been doing this at all	54	51.9
I've been doing this a little bit	17	16.3
I've been doing a medium amount	12	11.5
I've been this a lot	21	20.2
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been using alcohol or other drugs to myself feel better.</b>		
I haven't been doing this at all	78	75.0
I've been doing this a little bit	10	9.6
I've been doing a medium amount	7	6.7
I've been this a lot	9	8.7
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been getting emotional support from others.</b>		
I haven't been doing this at all	52	50.0
I've been doing this a little bit	20	19.2
I've been doing a medium amount	13	12.5
I've been this a lot	19	18.3
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been giving up trying to deal with it.</b>		
I haven't been doing this at all	62	59.6
I've been doing this a little bit	16	15.4
I've been doing a medium amount	9	8.7
I've been this a lot	17	16.3
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been making fun of the situation.</b>		
I haven't been doing this at all	62	59.6
I've been doing this a little bit	14	13.5
I've been doing a medium amount	15	14.4
I've been this a lot	13	12.5
<b>Total</b>	<b>104</b>	<b>100.0</b>

The most prevalent coping strategy was concentrating my efforts on doing something about the situation I'm in 34(32.7%), the next most frequent

strategy was "I've been saying to myself "this isn't real" 21(20.2%), whilst the least frequent was I've been making fun of the situation 13(12.5%) (Table 4a).

**Table 4b: Descriptive statistics for coping**

Coping	Frequency	Per Cent
<b>I've been taking action to try to make the situation better.</b>		
I haven't been doing this at all	34	32.7
I've been doing this a little bit	20	19.2
I've been doing a medium amount	9	8.7
I've been this a lot	41	39.4
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been refusing to believe that it has happened.</b>		
I haven't been doing this at all	60	57.7
I've been doing this a little bit	16	15.4
I've been doing a medium amount	9	8.7
I've been this a lot	19	18.3
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been saying things to let my unpleasant feeling escape.</b>		
I haven't been doing this at all	38	36.5
I've been doing this a little bit	19	18.3
I've been doing a medium amount	12	11.5
I've been this a lot	35	33.7
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been getting help and advice from other people.</b>		
I haven't been doing this at all	40	38.5
I've been doing this a little bit	25	24.0
I've been doing a medium amount	9	8.7
I've been this a lot	30	28.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been using alcohol or other drugs to help me get through it</b>		
I haven't been doing this at all	71	68.3
I've been doing this a little bit	12	11.5
I've been doing a medium amount	7	6.7
I've been this a lot	14	13.5
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been trying to see it in a different light, to make it seem more positive</b>		
I haven't been doing this at all	38	36.5
I've been doing this a little bit	16	15.4
I've been doing a medium amount	10	9.6
I've been this a lot	40	38.5
<b>Total</b>	<b>104</b>	<b>100.0</b>

Participants who use a lot of these coping strategies: I've been taking action to try to make the situation better 41(39.4%), I've been trying to see it in a different light, to make it seem more positive

40(38.5%), whilst the least frequent was I've been using alcohol or other drugs to help me get through it 14(13.5%) (Table 4b).

**Table 4c: Descriptive statistics for coping**

Coping	Frequency	Per cent
<b>I've been criticizing myself</b>		
I haven't been doing this at all	53	51.0
I've been doing this a little bit	25	24.0
I've been doing a medium amount	8	7.7
I've been this a lot	18	17.3
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been trying to come up with a strategy about what to do</b>		
I haven't been doing this at all	37	35.6

Coping	Frequency	Per cent
<b>I've been doing this a little bit</b>	17	16.3
<b>I've been doing a medium amount</b>	14	13.5
<b>I've been this a lot</b>	36	34.6
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been getting comfort and understanding from someone</b>		
<b>I haven't been doing this at all</b>	42	40.4
<b>I've been doing this a little bit</b>	18	17.3
<b>I've been doing a medium amount</b>	15	14.4
<b>I've been this a lot</b>	29	27.9
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been giving up the attempt to cope</b>		
<b>I haven't been doing this at all</b>	58	55.8
<b>I've been doing this a little bit</b>	20	19.2
<b>I've been doing a medium amount</b>	10	9.6
<b>I've been this a lot</b>	16	15.4
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been looking for something good in what is happening</b>		
<b>I haven't been doing this at all</b>	37	35.6
<b>I've been doing this a little bit</b>	16	15.4
<b>I've been doing a medium amount</b>	18	17.3
<b>I've been this a lot</b>	33	31.7
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been making jokes about it</b>		
<b>I haven't been doing this at all</b>	56	53.8
<b>I've been doing this a little bit</b>	21	20.2
<b>I've been doing a medium amount</b>	8	7.7
<b>I've been this a lot</b>	19	18.3
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping</b>		
<b>I haven't been doing this at all</b>	50	48.1
<b>I've been doing this a little bit</b>	20	19.2
<b>I've been doing a medium amount</b>	7	6.7
<b>I've been this a lot</b>	27	26.0
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been this a lot</b>	31	29.8
<b>Total</b>	<b>104</b>	<b>100.0</b>

Participants who reported thus: I've been trying to come up with a strategy about what to do was shown to be the most prevalent coping strategy 36(34.6%).

**Table 4d: Descriptive statistics for coping**

Coping	Frequency	Per Cent
<b>I've been accepting the reality of the fact that it has happened</b>		
<b>I haven't been doing this at all</b>	35	33.7
<b>I've been doing this a little bit</b>	24	23.1
<b>I've been doing a medium amount</b>	14	13.5
<b>I've been expressing my negative feelings.</b>		
<b>I haven't been doing this at all</b>	55	52.9
<b>I've been doing this a little bit</b>	20	19.2
<b>I've been doing a medium amount</b>	10	9.6
<b>I've been this a lot</b>	19	18.3
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been trying to find comfort in my religion or spiritual beliefs</b>		
<b>I haven't been doing this at all</b>	36	34.6
<b>I've been doing this a little bit</b>	16	15.4

Coping	Frequency	Per Cent
I've been doing a medium amount	15	14.4
I've been this a lot	37	35.
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been trying to get advice or help from other people about what to do</b>		
I haven't been doing this at all	34	32.7
I've been doing this a little bit	23	22.1
I've been doing a medium amount	15	14.4
I've been this a lot	32	30.8
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been learning to live with it</b>		
I haven't been doing this at all	41	39.4
I've been doing this a little bit	21	20.2
I've been doing a medium amount	16	15.4
I've been this a lot	26	25.0
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been thinking hard about what steps to take</b>		
I haven't been doing this at all	25	24.0
I've been doing this a little bit	22	21.2
I've been doing a medium amount	11	10.6
I've been this a lot	46	44.2
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been blaming myself for things that happened</b>		
I haven't been doing this at all	53	51.0
I've been doing this a little bit	22	21.2
I've been doing a medium amount	13	12.5
I've been this a lot	16	15.4
<b>Total</b>	<b>104</b>	<b>100.0</b>
<b>I've been praying or meditating</b>		
I haven't been doing this at all	26	25.0
I've been doing this a little bit	23	22.1
I've been doing a medium amount	14	13.5
I've been this a lot	41	39.4
<b>Total</b>	<b>104</b>	<b>100.0</b>

Table 5: Comparison of depression status and socio-demographics

Gender	Depression status n(%)						Total	X <sup>2</sup> (p-value)
	Normal	Mild mood disturbance	Borderline clinical depression	Moderate depression	Severe depression	Extreme depression		
Male	32(30.8)	2(1.9)	3(2.9)	3(2.9)	2(1.9)	1(1.0)	43(41.3)	12.553 (0.250)
Female	41(39.4)	3(2.9)	1(1.0)	6(5.8)	0(0.0)	5(4.8)	56(53.8)	
I don't want to disclose	3(3.9)	0(0.0)	0(0.0)	1(1.0)	1(1.0)	0(0.0)	5(4.8)	
<b>Total</b>	<b>76(73.1)</b>	<b>5(4.8)</b>	<b>4(3.8)</b>	<b>10(9.6)</b>	<b>3(2.9)</b>	<b>6(5.8)</b>	<b>104(100.0)</b>	
<b>Marital Status</b>								
Single/Never married	71(68.3)	5(4.8)	4(3.8)	8(7.7)	2(1.9)	6(5.8)	96(92.3)	6.294 (0.279)
Married/cohabiting	5(4.8)	0(0.0)	0(0.0)	2(1.9)	1(1.0)	0(0.0)	8(7.7)	
<b>Total</b>	<b>76(73.1)</b>	<b>5(4.8)</b>	<b>4(3.8)</b>	<b>10(9.6)</b>	<b>3(2.9)</b>	<b>6(5.8)</b>	<b>104(100.0)</b>	
<b>Age group (yrs)</b>								
21 – 30	71(68.3)	5(4.8)	4(3.8)	8(7.7)	2(1.9)	6(5.8)	96(92.3)	39.102 (0.001)
31 – 40	4(3.8)	0(0.0)	0(0.0)	2(1.9)	0(0.0)	0(0.0)	6(5.8)	
41 – 50	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.0)	0(0.0)	1(1.0)	
51 – 60	1(1.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.0)	
<b>Total</b>	<b>76(73.1)</b>	<b>5(4.8)</b>	<b>4(3.8)</b>	<b>10(9.6)</b>	<b>3(2.9)</b>	<b>6(5.8)</b>	<b>104(100.0)</b>	
<b>No. of children</b>								
None	71(68.3)	5(4.8)	4(3.8)	9(8.7)	2(1.9)	6(5.8)	97(93.3)	4.637 (0.462)
1 – 3yrs	5(4.8)	0(0.0)	0(0.0)	1(1.0)	1(1.0)	0(0.0)	7(6.7)	

<b>Total</b>	<b>76(73.1)</b>	<b>5(4.8)</b>	<b>4(3.8)</b>	<b>10(9.6)</b>	<b>3(2.9)</b>	<b>6(5.8)</b>	<b>104(100.0)</b>	
<b>Educational level</b>								
Secondary	33(31.7)	2(1.9)	3(2.9)	3(2.9)	2(1.9)	1(1.0)	44(42.3)	4.767 (0.445)
Tertiary	43(41.3)	3(2.9)	1(1.0)	7(6.7)	1(1.0)	5(4.8)	60(57.7)	
<b>Total</b>	<b>76(73.1)</b>	<b>5(4.8)</b>	<b>4(3.8)</b>	<b>10(9.6)</b>	<b>3(2.9)</b>	<b>6(5.8)</b>	<b>104(100.0)</b>	

In table 5, Age group (yrs) was the only significant socio-demographic characteristic that was

significantly associated ( $X^2 = 39.102$ ,  $P=0.001$ ) with depression status.

**Table 6: Comparison of depression status with suicidality**

Depression Status	Suicidality			$X^2$	p-value
	Think of death				
	No	Yes	Total		
Normal	76(73.1)	0(0.0)	76(73.1)	82.540	<b>0.001*</b>
Mild mood disturbance	5(4.8)	0(0.0)	5(4.8)		
Borderline clinical depression	4(3.8)	0(0.0)	4(3.8)		
Moderate depression	5(4.8)	5(4.8)	10(9.6)		
Severe depression	0(0.0)	3(2.9)	3(2.9)		
Extreme depression	0(0.0)	6(5.8)	6(5.8)		
<b>Total</b>	<b>90(86.5)</b>	<b>14(13.5)</b>	<b>104(100.0)</b>		
	Want to harm self				
Normal	76(73.1)	0(0.0)	76(73.1)	59.363	<b>0.001*</b>
Mild mood disturbance	3(2.9)	2(1.9)	5(4.8)		
Borderline clinical depression	0(0.0)	2(1.9)	2(1.9)		
Moderate depression	5(4.8)	2(1.9)	7(6.7)		
Severe depression	3(2.9)	3(2.9)	6(5.8)		
Extreme depression	3(2.9)	5(4.8)	8(7.7)		
<b>Total</b>	<b>90(86.5)</b>	<b>14(13.5)</b>	<b>104(100.0)</b>		
	Think about suicide				
Normal	71(68.3)	0(0.0)	71(68.3)	16.501	<b>0.006*</b>
Mild mood disturbance	2(1.9)	3(2.9)	5(4.8)		
Borderline clinical depression	4(3.8)	0(0.0)	4(3.8)		
Moderate depression	9(8.7)	1(1.0)	10(9.6)		
Severe depression	3(2.9)	0(0.0)	3(2.9)		
Extreme depression	5(5.3)	6(5.8)	11(10.6)		
<b>Total</b>	<b>94(90.4)</b>	<b>10(9.6)</b>	<b>104(100.0)</b>		
	Have a suicide plan				
Normal	68(65.4)	0(0.0)	68(65.4)	8.362	0.137
Mild mood disturbance	5(4.8)	0(0.0)	5(4.8)		
Borderline clinical depression	3(2.9)	1(1.0)	4(3.8)		
Moderate depression	6(5.8)	4(3.8)	10(9.6)		
Severe depression	3(2.9)	0(0.0)	3(2.9)		
Extreme depression	5(4.8)	9(8.6)	14(13.5)		
<b>Total</b>	<b>90(86.5)</b>	<b>14(13.5)</b>	<b>104(100.0)</b>		
	Suicide attempt				
Normal	67(64.4)	0(0.0)	67(64.4)	7.382	0.194
Mild mood disturbance	4(3.8)	1(1.0)	5(4.8)		
Borderline clinical depression	2(1.9)	2(1.9)	4(3.8)		
Moderate depression	10(9.6)	0(0.0)	10(9.6)		
Severe depression	3(2.9)	1(1.0)	4(3.9)		
Extreme depression	5(4.8)	9(8.7)	14(13.5)		
<b>Total</b>	<b>91(87.5)</b>	<b>13(12.5)</b>	<b>104(100.0)</b>		

The study showed that 14(13.5%) who had Mild mood disturbance, Borderline clinical depression, Moderate depression, Severe depression, and Extreme depression also thought of death, the students who had never had depressive symptoms and those who were

depressed and contemplated death differed significantly ( $X^2 = 82.540$ ,  $P=0.001*$ ); The proportion of participants who had depressive symptoms and those who want to harm self were 14(13.5%). They also differed significantly from those who did not have depressive

symptoms ( $X^2 = 59.363$ ,  $P=0.001^*$ ); Participants who were depressed and thought of suicide were 10(9.6%). They differed significantly from those who never had depression ( $X^2 = 16.501$ ,  $P=0.006^*$ ); Participants who were depressed and had a suicide plan were 14(13.5%). They were not significantly different from those who were not depressed ( $X^2 = 8.362$ ,  $P=0.137$ ). Participants who were depressed and attempted suicide were 13(12.5%). They did not differ significantly from those who were not depressed ( $X^2 = 7.382$ ,  $P=0.194$ ).

## DISCUSSIONS

### Summary of Results

Age group (yrs) was the only significant socio-demographic characteristic that was significantly associated ( $X^2 = 39.102$ ,  $P=0.001$ ) with depression status.

The depression status of the participants showed that those who had Mild mood disturbance were 5(4.8%), Borderline clinical depression 4(3.8%), Moderate depression 10(9.6%), Severe depression 3(2.9%), and Extreme depression 6(5.8%).

The study showed that 14(13.5%) who had Mild mood disturbance, Borderline clinical depression, Moderate depression, Severe depression, and Extreme depression also thought of death, the students who had never had depressive symptoms and those who were depressed and contemplated death differed significantly ( $X^2 = 82.540$ ,  $P=0.001^*$ ); The proportion of participants who had depressive symptoms and those who want to harm self were 14(13.5%). They also differed significantly from those who did not have depressive symptoms ( $X^2 = 59.363$ ,  $P=0.001^*$ ); Participants who were depressed and thought of suicide were 10(9.6%). They differed significantly from those who never had depression ( $X^2 = 16.501$ ,  $P=0.006^*$ ); Participants who were depressed and had a suicide plan were 14(13.5%). They were not significantly different from those who were not depressed ( $X^2 = 8.362$ ,  $P=0.137$ ). Participants who were depressed and attempted suicide were 13(12.5%). They did not differ significantly from those who were not depressed ( $X^2 = 7.382$ ,  $P=0.194$ ).

### Implications

The depression status of the participants showed that those who had moderate depression were more in number, followed by those who had Extreme depression, Mild mood disturbance were, Borderline clinical depression, and the least was severe depression as shown on table 2(c). The study revealed that 1 in 2 students on campus is depressed, ranging from a mood disturbance to extreme depression. This finding is consistent with the reports of previous authors [20-24].

The results of the study again showed that 2 in 13 students think about death, want to harm self, and have a suicide plan; Furthermore, 2 in 19 students think about suicide, and 1 in 7 students have attempted

suicide. (Table 6) The result of this study has shown that the prevalence suicidal attempt is rising amongst university students, which is a direct effect of a growing prevalence of depression. This finding collaborate the reports by previous authors who reported similar findings [25-29]. It therefore implies that students overtime would grow from having depressive symptoms into making attempts and eventually to successful completion of suicide, if adequate attention is not given to curb the growing prevalence. This again goes on to depict the burden of depression that students face on the university campuses.

The most prevalent coping strategy reported from the study was concentrating efforts on doing something about the situation, the next most frequent strategy was ‘I’ve been saying to myself “this isn’t real”, while the least frequent was I’ve been making fun of the situation as seen in table 5.

## CONCLUSIONS

The study showed that 14(13.5%) who had Mild mood disturbance, Borderline clinical depression, Moderate depression, Severe depression, and Extreme depression also thought of death, the students who had never had depressive symptoms and those who were depressed and contemplated death differed significantly ( $X^2 = 82.540$ ,  $P=0.001^*$ ).

The study revealed that 1 in 2 students on campus are depressed, ranging from a mood disturbance to extreme depression; 2 in 13 students think about death, want to harm self, and have a suicide plan; Furthermore, 2 in 19 students think about suicide, and 1 in 7 students have attempted suicide.

### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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