Influence of Depression on Malnutrition among Undergraduates in Babcock University Ilishan-Remo.

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ABSTRACT
Many young people suffer from depressive symptoms when facing difficult academic tasks and life challenge. Depression, in particular, is common in the young people and can result in loss of appetite, weight, and considerable malnutrition and dehydration. On the other hand, physical illness and malnutrition may lead to depression in this vulnerable group of population. The study was to assess the influence between malnutrition and depression among undergraduates in Babcock University. A cross sectional study design among Babcock University students. The study population was 150 students using a simple random sampling technique. It was concluded that undergraduates in Babcock University had a good knowledge of malnutrition (89.3%) and depression (62.0%). The prevalence of depression in this study was 15.3%. The study revealed that, there is a significant relationship between of knowledge malnutrition and knowledge of depression among undergraduates in Babcock University (r=0.219, p= 0.03). There was no significant association between the knowledge of malnutrition and the gender and BMI, however there is a significant relationship between knowledge of malnutrition and the age distribution of respondents. There was a significant relationship between the knowledge of depression and the gender, age distribution and the BMI of respondents. The study recommends that the school authority should put measures to curb depression among undergraduates by making it compulsory for students to see a guidance counselor every semester
Keywords: Malnutrition, Depression, Influence, Knowledge,

INTRODUCTION
Depression is common in the young and is associated with significant morbidity and mortality. The prevalence of depression in young people ranges from 10-20% depending on the regional, social, and cultural situation (1). Given that 4.4% is the depression rate in adulthood, young individuals are thus two to four times more vulnerable to depression than older adults (2).. In a study by (3) the prevalence of depression among the young population was as high as 35%. However, those studies included both major and minor depression in the criteria and stated that the minor

depression was more common among this age group whereas the major depression was relatively rare. The notable increase in number of individuals reaching youthful ages over the past decades resulted in the emergence of nutritional disorders such as malnutrition. Young individuals have a powerful mind-body connection and their nutritional state may significantly influence their mind and physical body (4). Malnutrition is recognized as a medical condition that involves under nutrition, overweight, obesity and micronutrient deficiency among others (5).

Malnutrition refers to a state of disturbance (either excess or deficiency) of energy intake, protein and other nutrients that results in change in body size, shape, composition, and function (6). Malnutrition is also considered an independent risk factor for morbidity and mortality if it is chronic (4). Depression in young people is found to be more prevalent among males than females. This difference was mainly attributed to the fact that males don't report and express their symptoms more readily than females (7). Factors that increase the risk of depression in young population include low income, lack of social support and companionship, academic failure, heart break, unemployment, lack of finances and chronic medical illnesses (2). Diagnosis of depression remains unrecognized and under diagnosed. This is partly due to the reluctance of young individuals to report their symptoms and partly due to the underestimation of the psychological aspect among many of the clinicians (1). There is a vicious cycle between depression and malnutrition. Therefore, the treating physicians should pay attention to the strong association between these two conditions (5).

METHODOLOGY

Across-sectional survey was carried out among Students of Babcock University, Ilisan-Remo. A self-administered questionnaire was used for data collection such as Socio demographic of the respondents, knowledge of depression and malnutrition and factors influencing depression and malnutrition and the relationship between depression and malnutrition among the respondents. The response rate adopted was that of a Likert scale, which were strongly, agree, agree, disagree and strongly disagree

DATA ANALYSIS

The data generated was analyzed using SPSS version 20.0 and the results were expressed using descriptive statistics such as means, standard deviations, percentages and frequencies.

RESULTS AND DISCUSSION

The socio-demographic status of the respondents is as shown in Table 1, there were male 44.6% and 55.3.0% female respondents. Age: 44.67% of the respondents were between the ages 22-34 and Mo re than of the respondents were single (55.33%). Religion: Majority (72%) were Christianity. Ethnicity: majority were Yoruba (82%).

TABLE 1: Socio-Demographic Characteristics of Respondents

Variables	Frequency (n=150)	Percentage
Age		
15-24	33	22.00
25-34	67	44.67
35-44	29	19.33
>45	21	14.00
Gender		
Male	67	44.7
Female	83	55.3
Marital status		
Single	83	55.33
Married	67	44.67
Religion		
Christianity		
Islam	108	72
Others	38	25.3
	4	2.7
Ethnicity		
Yoruba	123	82
Igbo	23	15.3
Hausa	1	0.7
Others	3	2

Table 2 shows the BMI of the Respondents. More than average (64.7%) had normal weight while Underweight are 21.3%, 8.0% are Overweight and 6.0% are Obese. The prevalence of depression in people with high

BMI is high according to (8) (1) and body weight (kg) and BMI (kg/m2) of the depression group were significantly higher.

Table 2: Body Mass Index of the Respondents

BMI (kg/m2)	F	%
Underweight (below 18.5)	32	21.3
Normal (18.5-24.9)	97	64.7
Overweight (25.0-29.9)	12	8.0
Obese (30.0 and above)	9	6.0

Table 3 b shows Knowledge of Malnutrition of the Respondent. 89.3% have never been diagnosed as being malnutrition while 10.7% of the respondents have been diagnosed as being malnutrition, 5.3% have family members diagnosed with malnutrition, 24.7% are not sure while 70% have family members that have not been diagnosed with malnutrition. 60% agreed that malnutrition is defined as a pathological state resulting from either the inadequate or excess intake of body nutrients while 31.3% disagreed. 6.6% of the respondents believe that Normal BMI extends from 25-30kg/m2 while 43.4% disagreed and 50% are not sure. 57.3% says that symptoms of malnutrition include general body weakness, elevated mood and ferocious appetite: 15.3% says no, while 27.3% not sure. Adequate diet prevents young people from being malnourished: 92(61.3%) respondents says Yes, 32(21.3%) No, 26(17.3) Not sure. Malnutrition in young people manifest weight as weight loss: 105(70%) respondents say Yes, 11(7.3%) says No, 34(22.7%) says Not sure. Malnutrition can be either a lack of excess intake of nutrients: 108(72%) respondents said Yes, 9(6%) No, 33(22%) Not sure. Most malnutrition in adult is accompanied with an underlying disease condition: 90(60%) respondents say Yes, 24(16%) No, 36(24%) Not sure. It is a common but unrecognized disorder in young people (Abdu, 2017). Malnutrition affects up to 25% of young individuals at home. Malnutrition is significantly higher in the young population even when they have normal body mass index (BMI) (6). This is due to the change of body composition with progressive increase in fat and decline in lean body mass with advancing age (9). Malnutrition is multifactorial among this age group and it can be a consequence of physical, mental, mental factors, or a combination of any (6).

Table 3: Knowledge of Malnutrition of the Respondent

Variables	Frequency	Percentage
Have you ever been diagnosed as being malnourished?	16	10.7
Yes	134	89.3
No		
Do you have family members diagnosed as being malnourished?		
Yes	8	5.3
No	105	70
Not sure	37	24.7
Malnutrition is defined as a pathological state resulting from either the inadequate or excess intake of body nutrients	90	60
Yes	13	8.7
No	47	31.3
Not sure		
Normal BMI extends from 25 to 30kg/m2		
Yes	10	6.7
No	65	43.3
Not sure	75	50
Symptoms of malnutrition include general body weakness, elevated mood and ferocious appetite		
Yes	86	57.3
No	23	15.3
Not sure	41	27.3
Adequate diet prevents young people from being malnourished	92	61.3
Yes	32	21.3
No	26	17.3
Not sure		
Malnutrition in young people manifests as weight loss	105	70
Yes	11	7.3
No	34	22.7
Not sure		
Malnutrition can be either a lack or excess intake of nutrients	108	72
Yes	9	6
No	33	22
Not sure		

Most adult malnutrition is accompanied with an underlying disease condition		
Yes	90	60
No	24	16
Not sure	36	24

Table 4 showed that 23(15.3%) respondents have been diagnosed with any form of depression in the past, 111(74%) have not been diagnosed, 16(10.7%) are not sure. 32(21.3%) respondents have ever been depressed, 112(74.7%) have never been depressed, 6(4%) are not sure. Depression is a common mental disorder among young people: 41(27.3%) respondents said Yes, 98(65.3%) No, 11(7.3%) Not sure. Depression in young people may manifest as loss of interest in anything, substance abuse, irritability: 110(73.3%) respondents said Yes, 8(5.3%) No, 32(21.3%) Not sure. 10(6.7%) respondents do have any family members or relatives diagnosed with depression, 89(58.3%) do not any family members or relatives diagnosed with depression and 51(34%) are not sure. Depression in young people may manifest as behavioral disorders: 101(67.3%) respondents says Yes, 32(21.3%) No, 17(11.3%) Not sure. 65(43.3%) respondents do need emotional support from the activities and program on campus, 17(11.3%) do need and 68(45.3%) are not sure. 133(88.7%) respondents do overeat or eat less when depressed, 16(10.7%) do not and 1(0.7%) not sure. 4(2.67%) respondents are very unsatisfied with the overall policy on depression in the university, 37(24.67) unsatisfied, 13(8.7%) are Neutral, 60(40%) are satisfied and 36(24.0%) are very satisfied with the overall policy on depression in the university. The prevalence of depression in young people ranges from 10-20% depending on the regional, social, and cultural situation (1). Given that 4.4% is the depression rate in adulthood, young individuals are thus two to four times more vulnerable to depression than older adults (2). And according to (3) the prevalence of depression among the young population was as high.

Table 4: Knowledge of Depression of the Respondent.

Variables	Frequency	Percentage
Have you been diagnosed with any form of depression in the past	23	15.3
Yes	111	74
No	16	10.7

Not sure		
Have you ever been depressed		
Yes	32	21.3
No	112	74.7
Not sure	6	4
Depression is a common mental disorder among young people	41	27.3
Yes	98	65.3
No	11	7.3
Not sure		
Depression in young people may manifest as loss of interest in anything, substance abuse, irritability		
Yes	110	73.3
No	8	5.3
Not sure	32	21.3
Do you have any family members or relative diagnosed with depression		
Yes	10	6.7
No	89	59.3
Not sure	51	34
Depression in young people may manifest as behavioral disorders	101	67.3
Yes	32	21.3
No	17	11.3
Not sure		
Do you need emotional support from the activities and program on campus		
Yes		
No	65	43.3
Not sure	17	11.3
	68	45.3
Do you overeat or eat less when depressed		
Yes	133	88.7
No	16	10.7
Not sure	1	0.7
Overall policy on depression in this university		
Very unsatisfactory	4	2.67
Unsatisfactory	37	24.67
Neutral	13	8.7
Satisfactory	60	40.0
Very satisfactory	36	24.0

Table 5 showed that 120(80%) respondents agree that academic challenges lead to loss of appetite and weight among young people, 24(16%) do not agree and 6(4%) are not sure. 120(80%) respondents agree that death of loved one predisposes one to depression, 24(16%) do not agree and 6(4%) are not sure. 140(93%) respondents agree that heartbreak predispose individuals to depression, 10(7.0) do not agree. 150(100%) respondents agree that depression is associated with increased risks of substance abuse. 134(89.3%) respondents agree that depression is associated with unemployment, 11(7.3%) do not agree and 5(3.3%) are not sure. 97(64.7%) respondents agree that depression is associated with early pregnancy, 46(30.7%) do not agree while 7(4.6%) are not sure. 100(66.7%) respondents agree that Depression is associated with educational underachievement, 32(21.3%) do not agree and 18(12.0%) are not sure. 112(74.6%) respondents agree that depression is associated with parental/family issues, 28(18.7%) do not agree and 10(6.7%) are not sure. Depression in young people is associated with social withdrawal, drops in performance at school, drug or alcohol use and engaging in risky behavior (10). It is associated with increased risks of substance abuse, unemployment, early pregnancy, and educational underachievement. Suicide, the most serious risk of the illness, is the third leading cause of death in 15-24 year Olds and the second leading cause of death among university students (11).

Table 5: The Factors Influencing Depression and Malnutrition of the Respondent.

VARIABLES	FREQUENCY	PERCENTAGE
Academic challenges lead to loss of appetite and weight among young people		
Yes	120	80.0
No	24	16.0
Not sure	6	4.0
Major life events such as:		
Death of loved one	120	80.0
Yes	24	16.0
No	6	4.0
Not sure		
Heart break predispose individuals to depression		
Yes	140	93.0
No	10	7.0

Not sure	0	0.0
Depression is associated with:		
Increased risks of substance abuse		
Yes	150	100
No	0	0
Not sure	0	0
Unemployment	134	89.3
Yes	11	7.3
No	5	3.3
Not sure		
Early pregnancy	97	64.7
Yes	46	30.7
No	7	4.6
Not sure		
Educational underachievement	100	66.7
Yes	32	21.3
No	18	12.0
Not sure	112	74.6
Parental/Family Issues	28	18.7
Yes	10	6.7
No		
Not sure		

Table 6: The relationship between the knowledge of malnutrition and depression of the respondent.

Variables	Mean	Standard Deviation	N	R	P	Decision
Knowledge of malnutrition	7.1401	1.49271	20	0. 219	0.03	Sig
Knowledge of depression	6.5490	1.02764	5			

Table 6 shows the relationship between the knowledge of depression and malnutrition of the respondent which revealed that, there is a significant relationship between of knowledge of depression and knowledge malnutrition among undergraduates in Babcock University (r=0.219, p= 0.03). There is a strong relationship between the body and mind according to the finding (9). And (12) stated that malnutrition was independently associated with depression.

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