



Personality traits as predictors of depressive-symptoms among undergraduates in Lagos state

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Abstract

Depression is the most prevalent disabling mental disorders worldwide. In a study by WHO (2018) Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when long-lasting and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family. At its worst, depression can lead to suicide which is the second leading cause of death among adolescence (15-29years).Hence, the study examines Personality traits as predictors of depressive-symptoms among undergraduates in Lagos State University as depression has become the most ignored and misunderstood forms of mental disorder in the country. Recent findings have established connection between neuroticism and depression as well as extraversion and depression, but no unambiguous results of connections between other traits and depression exist. Cross-sectional research designed was adopted using survey method to obtain data from the respondents. Big Five Inventory (BFI-10) and Beck's Depression inventory II (BDI-II) was administered individually to the randomly selected four hundred and twenty (420) undergraduates of the university. Four hypotheses were formulated and tested using multiple regressions and T-test for independent means. Result of the findings revealed





that there was significant joint influence of openness, agreeableness, conscientiousness, neuroticism and extraversion on depression among undergraduates; revealed negative influence of neuroticism on depression, no significant influence of conscientiousness on depression and it was also revealed that there was no significant influence of sex on depression. Thus, it was recommended that measures be put in place to identify factors influencing depression and if identified early can be managed by expertise using behavioral therapy, emotional support, social skill training etc. This may help the young university students to overcome their difficulties and lead a healthier life.

Keywords: Personality traits, depression, suicide, and students.

Introduction

Depression is a common illness worldwide, with more than 300 million people affected (WHO, 2018). Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when long-lasting and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family. Undergraduate students are a unique at risk population for development of depression at different levels because of their diverse personality traits. According to WHO(2018) depression can lead to suicide. Close to 800 000 people die due to suicide every year. Suicide is the second leading cause of death in 15-29-year-olds which is the adolescent stage. Adolescence is a stage where there are many changes; physically and emotionally. It is a period of gradual transition from childhood to adulthood. The process of growing up is complicated and challenging.

Adolescents are faced with many expectations, responsibilities, influences and uncertainties during this phase. According to the latest global data (WHO, 2016), Depression is most common in age 18 to 25 (10.9 percent) and in individuals belonging to two or more races (10.5 percent). Many would argue, the pressures of higher education elicit high anxiety rates, feelings of failure, stress, suicidal ideation, and depression among undergraduates at this state. Women are twice as likely as men to have had a depressive episode, according to the NIMH and the World Health Organization (WHO). From 2013 to 2016, 10.4 percent of women were found to have depression, compared with 5.5 percent of men, according to the CDC (2018). In a report carried out by Gureje, Uwakwe, Oladimeji and Makanjuola (2010) using 21 states out of 36 states in Nigeria representing 57% of the national population using adult aged 18 years. They found out that



the prevalence of the life time and 12-month period Major Depressive Episodes were 3.1% and 1.1% respectively. As early as in the middle of the 1990s, the World Health Organization estimated that the ranking of the depression with respect to burden would rise to the second place by 2020 (Murray & Lopez, 1996, 38).

In the course of time and especially in the twentieth century, the psychological knowledge of personality and depression has rapidly increased as a result of modern psychological and medical research Solomon (2002). The modern days personality can be classified into five named as openness to experience (O), conscientiousness (C), extraversion (E), agreeableness (A), and neuroticism (N), sometimes easily remembered as an acronym OCEAN. The factors shall, however, be presented according to McCrae & Costa (1987) in the order N-E-O-A-C, Which can be found in the name of the five-factor personality inventory NEO-PI-R (Costa & McRae, 1985), as well.

Neuroticism, which is sometimes called emotional instability, manifests itself as the experience of negative emotions, such as anger, anxiety, and depressed mood. Neurotic people are apt to react emotionally, interpreting even ordinary situations as threatening. Again, people with low neuroticism tend to be calm and emotionally stable, and have more capability to think clearly and cope effectively with stress (McCrae & Costa, 1987; Goldberg, 1990).

Extraversion is in conjunction with positive emotions, sociability, and engagement with the external world. Extravert people are perceived as full of energy, enjoy social communication, and show their enthusiasm with ease. As opposed to this, introvert people prefer non-social environments, are more quiet, and simply do not need as much social stimulation. This does not mean anxiousness, shyness or depression, however (McCrae & Costa, 1987; Goldberg, 1990). Openness to experience is regarded as a general appreciation for emotion, imagination, unusual ideas, curiosity, and variety of experience. People with high scores on openness tend to be sensitive to beauty, more creative and more aware of their feelings. In turn, more closed off people are apt to plain, straightforward environments and feel anxious towards ambiguity, for example (McCrae & Costa, 1987; Goldberg, 1990).

Agreeableness, which is sometimes called friendliness, expresses compassion and cooperativeness towards surrounding people. Agreeable people generally have a positive view of humanity and make compromises easily in order to achieve social harmony.



Disagreeable people instead have a more negative view of others, tend to be more selfish, and are not concerned with the wellbeing of their neighbours

(McCrae & Costa, 1987; Goldberg, 1990). Conscientiousness brings forth self--discipline and a sense of duty. Conscientious people often have high aims for achievement and do not hesitate to act dutifully in order to fulfill the expectations towards them. People who scored low on conscientiousness show more preference to spontaneous rather than planned behaviour and have a tendency not to keep an exact order (McCrae & Costa, 1987; Goldberg, 1990).Some psychological theories have established a strong relationship between personality traits and depression. Aaron Beck (1967)studied people suffering from depression and found that they appraised events in a negative way.Beck believed that depression prone individuals develop a **negative self-schema**. They possess a set of beliefs and expectations about themselves that are essentially negative and pessimistic. Beck claimed that negative schemas may be acquired in childhood as a result of a traumatic event.

Statement of the Problem

The relationship between depressive-symptoms and personality dimensions of human has been a topic of interest both in history and modern research. Understanding the connection between these two variables will help to develop suitable models of treatment for depression. At the undergraduate level, academic pressures are increasing day by day and at each successive level. Students are adjusting emotionally to complex life changes. The university challenges, leaving home for the first time, learning to live independently, forming new relationships, and irregular sleep could be the risk factors for students and depression itself is proven risk factor for absenteeism, educational under achievement and substance abuse. Apart from their inability to cope with school demand some are easily predisposed to depression as a result of their personality trait, for examples, empirical findings have established strong link between neuroticism and depression leading to suicide (Ryder 2003) Therefore, there is urgent need to investigate personality traits as predictors of depressive symptoms among undergraduate students in Lagos State University .

Objectives of study

The main objective of the study is to investigate personality traits as predictors of depressive symptoms among undergraduate in Lagos



State University. The main purpose would be classified into the following specific objectives:

- To investigate joint and independent influence of openness, agreeableness, conscientiousness, neuroticism and extraversion on depression among undergraduate students.
- To examine the influence of neuroticism on depression among undergraduate students.
- To examine the influence of conscientiousness on depression among undergraduate students
- To examine the influence of sex on depression among undergraduate students.

Research Hypothesis

- There will be significant joint and independent influence of openness, agreeableness, conscientiousness, neuroticism and extraversion on depression among undergraduate students.
- Students who score high on neuroticism will be more depressed compare to their counterparts who are low on neuroticism.
- Students who score high on conscientiousness will be less depressed compare to their counterparts who are high on conscientiousness.
- Female students will more depress than their male counterparts.

Research Design

Cross-sectional research designed using survey method (questionnaire) to obtain data from the respondents. The inclusion criteria include; undergraduate students of Lagos State University who must have been on a full time programme and has attained the University recommended age while the exclusion criterion is non-student of the Lagos State University.

Measures

An already developed instrument was used to collect data from the respondents. The following adopted research instruments were used:

Section A: It measured the socio-demographic variables which comprises of the sex, age, marital status, religion, level, department and faculty.

Section B: The Big Five Inventory (BFI) developed by Rammstedt B. and Oliver P. John (2007) consists of 10 items and it is used to assess the personality characteristics of extraversion, neuroticism, agreeableness, openness to experience and conscientiousness. The extraversion subscale was made up of 2 items (item 1, and 5), the agreeableness



subscale was made up of 2 items (items 2 and 7); conscientiousness made up of 2 items (item 3 and 8); neuroticism comprises of 2 item (item 4 and 9) and openness to experience which comprises of 2 items (item 5 and 10). It is rated on a five-point likart scale from 1= strongly disagree, 2= disagree, 3= undecided, 4= agree, 5= strongly agree. Gottman Split-half coefficient of 0.906 and cronbach alpha of 0.84 was reported also high score on the dimension reflect high level of the personality trait while low score reflect low level of the personality trait.

Section C: Beck's Depression inventory II (BDI-II) developed by Beck, Steer, Ball and Ranieri, (1996), a multiple-choice inventory of 21 statements, which are assessed on a scale from 0 to 3. The BDI score is then a continuous variable – with its values between 0 and 3– which indicates the intensiveness of depressive symptoms. The scores below 13 are considered “minimal” depression, scores between 14 and 19 “mild”, scores from 20 to 28 “moderate” and from 29 onwards “severe” (Beck, Steer & Brown, 1996). Beck's study reported a coefficient alpha rating of .92 for outpatients and .93 for college student samples. The BDI-II positively correlated with the Hamilton Depression Rating Scale, $r = 0.71$, had a one-week test-retest reliability of $r = 0.93$ and an internal consistency $\alpha = .91$.

Procedure

Letter of introduction was collected from the department of psychology, two (2) research assistants was recruited during the course of administering the instruments to the participants. Faculties in the university and department were randomly selected using ballot system. All the eight faculties at the main campus, Ojo were selected and undergraduate students were randomly selected from the department in each faculty and instruments (questionnaires) were administered to the participants based on the principle of randomization after their consent have be sought. Four hundred and twenty (420) undergraduate students participated in the study.

Result

The data was analyzed using Statistical Package for the Social Science version 20 (SPSS. 20). The first was tested using multiple regressions, second, third and fourth hypotheses were tested using T-test for independent means.

Descriptive Statistics

Table 1. Socio-Demographic Characteristics of the Participants

Variable	Frequency	Percentage
Age group (years)		
16-20years	219	52.1
21-25years	174	41.4
26-30 years	24	5.7
31years and above	3	0.7
Sex		
Male	276	65.7
Female	144	34.3
Marital Status		
Single	398	94.8
Married	17	4.0
Divorced	1	0.2
Separated	2	0.5
Others	2	0.5
Level		
100L	116	27.6
200L	125	29.8
300L	71	16.9
400L	98	23.3
500L	10	2.4
Religion		
Christianity	296	70.5
Islamic	124	29.5
Faculty		
Social Sciences	75	17.9
Management Sciences	68	16.2
Education	41	9.8
Law	28	6.7
Arts	82	19.5
School of Transport	22	5.2
Sciences	84	20.0
School of Communication	20	4.8

The data revealed that the percentage of male participants (65.7%) was lower than that of the female (34.3%). The dominant group in the camps that participated was within the age brackets of (16-20 years). Christians accounted for 70.5% of the participants while Muslims were 29.5%, while majority of the participant were single accounting for

94.8% of the participant. 200 level participated mostly with 29.8% followed by 100L with 27.6% while 300L, 400L, 500L were 16.9%, 23.3% and 2.4% respectively. The following percentages represent each faculty: Social Sciences (17.9%) Management Sciences (16.2%), Education (9.8%), Law (6.7%), Arts (19.5%), School of Transport (5.2%), Sciences (20.0%), School of Communication (4.8%).

3.2 Test of Hypothesis

Hypothesis One

The first hypothesis which stated that there will be significant joint and independent influence of openness, agreeableness, conscientiousness, neuroticism and extraversion on depression among undergraduate students was tested using multiple regressions. The result is shown below:

Table 2:

Summary of Regression analysis showing joint and independent influence of personality factors on depression

Model	R	R ²	F	P	β	T	P
Constant	0.4	0.176	17.73	<.0			
	20		2	1			
Extraversion					.085	1.741	>.05
Agreeableness					-.065	-1.299	> .05
Conscientiousness					.098	2.089	<.05
Neuroticism					.373	8.188	<.01
Openness to Experience					-.170	-3.587	<.01

Dependent Variable: Depression

Predictor Variables: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to experience

The finding of the study revealed that there was significant joint influence of openness, agreeableness, conscientiousness, neuroticism and extraversion on depression among undergraduate students in Lagos State University [F=17.732, R² = 0.176, P<.01]. The predictor variables accounted for 18% of the total variation on Depression. It can be seen that conscientiousness (β = 0.98, t= 2.089, P<.05), Neuroticism (β = 0.373, t= 8.188, P<.01) and Openness to experience (β = -0.170, t= -3.587, P<.01) had significant independent influence on depression among undergraduate students in Lagos State University while Extraversion (β = 0.085, t= 1.741, P>.05) and Agreeableness (β = -0.065, t= -1.299, P>.05) did not have significant independent influence on depression among undergraduate students in Lagos State

University. Therefore, the stated hypothesis that there will be significant joint and independent influence of openness, agreeableness, conscientiousness, neuroticism and extraversion on depression among undergraduate students in Lagos State University is thereby accepted.

Hypothesis Two

The second hypothesis which stated that undergraduate students who score high on neuroticism will be more depressed compare to their counterparts who are low on neuroticism was tested using t-test for independent means. The result is presented below:

Table 3:

Summary table of Independent T- test showing influence of neuroticism on depression

Variables	Sex	N	Means	SD	df	t	p
Neuroticism	Low	257	14.01	11.23	418	-4.801	<.01
	High	163	19.65	12.50			

The Table 3 above reveals that there was significant negative influence of neuroticism on depression among undergraduate students in Lagos State University ($t = -4.801, df(418); P < .01$). it can be further revealed that undergraduate students who score high on neuroticism ($M=19.65$) were more depressed compare to their counterparts who are low on neuroticism ($M=14.01$). Thus, the stated hypothesis is accepted.

Hypothesis Three

The third hypothesis which stated that undergraduate Students who score high on conscientiousness will be less depressed compare to their counterparts who are high on conscientiousness was tested using t-test for independent means. The result is presented below:

Table 4:

Summary table of Independent T- test showing influence of conscientiousness on depression

Variables	Sex	N	Means	SD	df	t	P
Conscientiousness	Low	259	16.33	11.44	418	0.772	>.05
	High	161	15.98	12.98			

The Table 4 above reveals that there was no significant influence of conscientiousness on depression among undergraduate students in

Lagos State University ($t = -,df(418); P>.05$). Since no significant influence was established between conscientiousness and depression, therefore, the stated hypothesis is thereby rejected.

Hypothesis Four

The fourth hypothesis which stated that female students will more depressed than their male counterparts was tested using t test for independent means. The result is shown in table below:

Table 5:

Summary table of Independent T- test showing influence of sex on depression

Variables	Sex	N	Means	SD	df	t	p
Depression	Male	276	16.47	12.33	418	0.520	>.05
	Female	144	15.67	11.49			

The Table 5 above reveals that there was no significant influence of sex on depression ($t = -0.520,df (418); P>.05$). Thus, the hypotheses three was rejected.

Discussion

This chapter discusses the summary of findings and discussion with previously done empirical research. The main objective of the study is to examine personality factors as predictors of depression among undergraduate students in Lagos State University. The finding of the study revealed that there was significant joint influence of openness, agreeableness, conscientiousness, neuroticism and extraversion on depression among undergraduate students in Lagos State University in which the predictor variables accounted for 18% of the total variation on Depression. It can be seen that conscientiousness, Neuroticism, and Openness to experience had significant independent influence on depression among undergraduate in Lagos State University while Extraversion and Agreeableness did not have significant independent influence on depression among undergraduate in Lagos State University. Also, it can be deduced from the findings that there was significant negative influence of neuroticism on depression among undergraduate in Lagos State University such that undergraduate who score high on neuroticism were more depressed compare to their counterparts who are low on neuroticism but no significant influence was established between conscientiousness and depression likewise, no significant influence of sex on depression among undergraduate students in Lagos State University



Recommendation

Based on the findings of this study, university administrators should assess important factors influencing depression. Undergraduate university students with depression if identified early can be managed by behavioral therapy, emotional support, interpersonal psychotherapy, and social skill training through the help of experts from department of psychology and university counseling unit. This may help the young university students to overcome their difficulties and lead a healthier life.

Conclusion

The present study has confirmed results of previous research in many ways in that it established the fact that all the personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness to experience) jointly predicted depression among undergraduate student and of the personality traits of the five factor personality model, neuroticism has a strong link with Major Depressive Disorder. High neuroticism functions as a severe risk factor for Depressive symptoms, while conscientiousness and openness to experience was revealed through this study to influence depression among undergraduate students. Although no difference was established between sex either male or female to have influenced depression. Hence, research on the fundamental themes, like personality issues, can, however, increase our understanding of the aetiology of depression, and help us to develop suitable treatment models.

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