

PERSONAL-SOCIAL VARIABLES PREDICTING DEPRESSION AND ANXIETY AMONG UNDERGRADUATE STUDENTS IN EDO STATE, NIGERIA

BY

Osumah, Obaze Agbonluae, Ph.D: Department of Guidance and Counselling, Faculty of Education, Ambrose Alli University, Ekopma, Edo State, Nigeria; E-mail: osumahobaze@gmail.com

&

Asekomhe, Theresa Ikhiatonotse: Department of Guidance and Counselling, Faculty of Education, Ambrose Alli University, Ekopma, Edo State, Nigeria; E-mail: osumahobaze@gmail.com

Abstract

This study examined the personal-social variables predicting depression and anxiety among undergraduate students in Edo State, Nigeria. The study adopted the causal-comparative design. The population covered all the 56,388 regular students in Ambrose Alli University, Ekpoma and University of Benin, Benin City in the 2020/2021 session. The proportional random sampling technique was used to select 1% of the total number of students across each of the faculties in the institution. Hence, 564 students were selected from both universities. The instrument that was used for this study was a questionnaire titled: Prevalence of Depression Questionnaire (PDQ) and Gender Inclination Scale (GIS). The binary logistics regression was used to test the hypotheses at 0.05 level of significance. Findings revealed that depression was predicted by gender and age related changes among undergraduate students in Edo State, Nigeria. It was recommended that gender and age-targeted counselling on depression and anxiety management should be encouraged in higher institutions of learning in Edo State.

Keywords: *Prevalence, Depression, Secondary schools and Stress*

Introduction

Depression is a debilitating and pernicious cluster of symptoms that may persist for a period of weeks, months, or even years while anxiety is a personal feeling of worry, apprehension, nervousness or uneasiness that occurs when a student encounters test or examination in any form and at any level. Both are sometimes characterized by loss of interests or pleasure, decreased energy, feelings of guilt of low self-worth, disturbed sleep or appetite and poor concentration (Ibrahim, Kelly, Adams & Glazebrook, 2021). It is also characterized by changes in mood status presenting as feelings of sadness which may fluctuate from slight hopelessness to severe feelings of disappointment. It is a disorder that can be reliably diagnosed and treated in primary health care centres. If untreated in the early age of occurrence, it can lead to different problems such as school failure, conduct disorder and delinquency, eating disorders such as anorexia and bulimia, school phobia, panic attacks, substance abuse or even suicide (Lotfi, Aminian, Ghomizada & Zarea, 2020; Yalemwork, 2020).

In regard to its prevalence, the world mental health survey initiative carried out in Nigeria reported that lifetime prevalence of depression ranges from 10% of 15% (Ibrahim, Kelly, Adams & Glazebrook, 2021). In 2015, the world Health Organization study on global aging and adult health reported a prevalence of 6.7% for mild depression among learners aged 18 years and older. Compared to the general population, anxiety among students is more prevalent among in-school adolescents with conduct disorder and is often associated with poor academic outcomes, poor quality of school life and increase utilization of health-care resources. Among hypertensive patients, depressive symptoms have been associated with poor blood pressure (BP) control. Despite the evidence linking depression to poor Blood pressure (BP) control and increased hypertension-related morbidity and mortality, there is paucity of data on the burden of depression among students with hypertension in sub-Saharan African. In Nigeria, the prevalence of major depression increased marginally from 26.7% in 2017 to 26.9% in 2018 (Marcus, Yasamy, Mark, Dan & Shekhar, 2015).

The causes of students depression and anxiety as identified by Kaur (2011) include: long school hours, excessive academic engagement, increasing class sizes, pressure from parents, pressure from friends, changes in curriculum, poor class management by students. Where such depression inductive factors are poorly managed they could affect the health, academic performance and achievement of students in schools. Furthermore, Osha (2020) maintained that prevalence, effects and causes of depression and anxiety among students could vary with respect to personal and social variables. Personal variables in this context connote attributes that distinguishes one student from another. These attributes include but are not

restricted to sex, age, and others while social variables include gender inclination, culture, mass media, religious beliefs among others. With respect to social variables - gender, the extent of maleness and femaleness of a student may not have the same capacity for stress-coping. This could interface in the prevalence of depression in various gender make up. This is because high level of femaleness might be emotionally weaker than maleness in stress situations and times of emotional challenges. Hence, depressive disorder may differ with respect to their gender (Olaitan, Oyerinde, Obiyemi & Kayode, 2010). The level or prevalence of depression among students could also be interfaced by students' age.

Age refers to the number of years an individual has lived. The older one gets, the better such person is adjudged to be mature and exposed. This is the reason, it is sometimes considered in the recruitment of workers for vacancies and admission process in schools. Since age is often associated with experience and maturity, the expectation is that the older students might have better experience than their younger ones in managing challenges in the school environment, such as beating deadlines to submit projects and assignments than the less experienced ones. The coping effort of the older students might be higher in such circumstances as against the low coping behaviours of younger students. Consequently, this could affect the prevalence of depression.

Several studies have been conducted on personal variables and depression among students in Edo State in recent times. Omomia, Omomia, Chimezie and Akinwale (2020) examined the perceived impact of depression on the academic achievements of Biology students in Education District IV of Lagos state. Some of the findings are that students experienced high level of depression at the end of the term and this had adverse effect on their academic achievement. Nwimo and Onwunaka (2020) determined the level of depression experienced by secondary school teachers and students in Ebonyi State. The results showed that the secondary school students had a high level of and the difference in the level of depression reported by male and female students was significant with male students reporting higher level of depression than female students. Busari (2021) investigated the level of depression experience among undergraduate students of university of Ado Ekiti, Emmanuel Alayande Campus Oyo, Symptoms of depression and various stressors in Academic work of students were identified. Four Hundred and Eighty students participated in this study. Results also indicated that undergraduates in their second year were better adjusted to academic depression than their first year counterparts. The result further shows that the level of academic depression experienced among students is high.

In another study Ekundayo and Kolawole (2021) examined the coping strategies of these female students with depression in Ekiti State, Nigeria. The study revealed a significant gender difference in the level of depression and also some sources of depression among secondary school students. Similarly, Chellamuthu (2017) explored the gender differences and its relationship with academic depression experienced among high school students. The results revealed that students from private school experienced higher academic depression than that of government school students, and private school students have higher mental health status than their counterpart. The result further shows that male students experience more academic depression than their female counter among students of high school students. Abiodun and Oluwafunto (2018) examined the present prevalence of depression among university students as well as gender dissimilarity in self-reported depression. 550 (male-46; female-306) randomly selected students from three private universities in Ogun State, Nigeria completed Kutcher Adolescent Depression Scale. Further analysis showed that self-reported cases of mild depression was more than that of severe depression and difference on gender indicated that overall rate of depression for females (37.30%) was higher than that of males (34.64%). There was no significant difference on gender basis at 0.05 alpha level.

In the study of Aam, Safiyanu and Adamu (2017) examined the relationship between age and academic Depression among secondary school students in Bauchi – Nigeria. Correlational design was used. Findings from the study showed that there is a significant relationship between age and academic depression among secondary students in Bauchi – Nigeria. In a descriptive study, Shiferaw, Anand, and Nemera (2015) examined exploring the perceived depression level and academic depression among students in Jimma Zone, Ethiopia. A cross-sectional questionnaire-based survey design of 193 students, who were selected by a proportionate stratified random sampling, was selected for the study. Results showed that the prevalence of perceived depression level among students of Jimma was 47.7%. Result further shows that academic depression differed by level of study as older students had more academic responsibility than younger students. Gebrekirstos (2015) examined level of study depression among secondary school students and their academic performance: The Case of Central Zone of Tigray Region. This study employed a cross-

sectional survey method which intended at inspecting the current level of depression, possible contributing factors in central zone secondary school students of Tigray region. The study areas consist of 1139 secondary school students and out of them 321 participants were taken for this study. To analyze the collected data, both descriptive and inferential statistics were applied. Accordingly, the result showed that, all the secondary school students in higher age experienced higher level of academic depression than younger ones.

A study done by Epkins (2016), looked at clinic-referred children. Two main groups of these children emerged, those whose personality tends to be internalized, and those who were externalized. Epkins was looking for evidence of Beckian thinking in young children. She explains that specificity would emerge on all cognitive measures, with internalizing children reporting more negative cognition than externalizing children (Epkins 2016). This is so because focusing on yourself would logically lead to a greater increase of negative automatic thoughts on average, her findings consistent with Beck's Theory, the findings suggest that the negative cognitive triad, cognitive processing distortions, and depressive and anxious thought content, may be specifically related to internalizing.

Statement of the Problem

When a demand is exerted on any entity that is incapable of delivering the required result, there is bound to be a problem. The problem is stress, strain and ultimately depression. Just like any attempt to swim against the tide ends up in stress and depression, so also university students from whom much is expected from their parents/guardian. In Edo State many students study under unpleasant learning environment, inadequate school facilities, and academic pressure. Couple with the foregoing, is the unprecedented increase in strike actions which have crippled academic activities in most public universities. Generally, depression is associated with other health challenges such as anxiety, heart attack, insomnia, migraine, weakness of the body among others. Hence, some students who are victims of one or more of such ailments have had to be absent from schools in their bid to visit their doctors with such life-threatening diseases (Kaur, 2000). Even when present in school with such health challenges, students as victims of depression are easily fatigued, restless and reserved. The negative effects this could have on the students' academic achievement.

In attempt to manage this challenge, several studies on prevalence of depression have been carried out in studies in Nigeria (Alan & Elaine, 2020; Olaitan, Oyerinde, Obiyemi&Kayode, 2010; Ibrahim, Kelly, Adams & Glazebrook, 2021). All the studies focused on prevalence of depression, causes and effects of depression among hospital staff and prison workers among others. No such study to the best of the researcher's knowledge has examined personal and social variables predicting depression and anxiety among public university undergraduates in Edo State, Nigeria. This is the gap in knowledge that this study seeks to fill.

Research Hypotheses

The following research hypotheses were tested in the study:

- 1) Gender and age does not significantly predict depression among public university undergraduates in Edo State, Nigeria
- 2) Gender and age does not significantly predict anxiety among public university undergraduates in Edo State, Nigeria

Methodology

The study adopted the causal comparative design. The population covered all the 56,388 regular students in Ambrose Alli University, Ekpoma and University of Benin, Benin City in the 2020/2021 session. The proportional random sampling technique was used to select 1% of the total number of students across each of the faculties in the institution. Hence, 564 students were selected from both universities. The instrument that was used for this study was a questionnaire titled: Prevalence of Depression Questionnaire (PDQ) and Gender Inclination Scale (GIS). PDQ was divided into two sections –Section A, and B and C. Section A addressed demographic information of students such as: their age. Section B dwelt on the prevalence of depression among students in the institution. Section B and C contains 10 items each statement that border on the various symptoms of depression among students. Section B contain statements, Section C contains statements that border on anxiety, cause of anxiety, effects of anxiety. All the items were rated on a four point likert scale: Always – 4, Sometimes – 3, Rarely – 2 and Never- 1. A mean score of 2.50 was used as

the benchmark for determining parents’ perception on the item statements. This was obtained by adding up the four point responses (Always – 4, Sometimes – 3, Rarely – 2, Never - 1) and dividing the sum of the scales (10) by the total number of scales (4) to give 2.50. Hence, a score of 2.50 or higher represents agreement while means score of 1 to 2.49 was taken otherwise.

The reliability of the instrument was done using the Cronbach reliability technique. This was done by administering copies of the questionnaire to a trial group of 20 students outside the study area. After the analysis, the reliability alpha on the items yielded a coefficient of 0.75. The researcher personally administered the questionnaire to teachers after due permission was taken from the principal. The principal was informed about the purpose of the research exercise and the role of students as the target participants in the study. The researcher gave copies of the questionnaire to the students who were expected to fill the instrument. Binary logistic regression analysis was used to test the hypotheses at 0.05 level of significance.

Results

The results of the analysis of research hypotheses 1 and 2 are presented below

Hypothesis 1: Gender and age does not significantly predict depression among public university undergraduates in Edo State, Nigeria

Table 1: Binary Logistic Regression (BLR) on the effect of Gender and Age predictors on Depression

	B	S.E.	Wald	df	p-value	Exp(β)	95% C.I. for Exp(β)	
							Lower	Upper
Gender	.184	.032	33.063	1	.000	1.201	1.072	2.870
Age	-.288	.037	7.784	1	.004	1.334	.682	2.612
Constant	2.698	.607	19.734	1	.000	.067		

Model Diagnostics: Cox & Snell R²-Square = .182 Nagelkerke R-Square = .244
Chi-square (X²) = 14.401 Classified cases = 67.6%

Data in Table 1 showed that the Cox & Snell R² of 0.182 and Nagelkerke R² of 0.244 are the coefficients of determination which explains the good fitness of fit of the logistic model. The R² coefficient explains the extent of prediction and thereby showed that 18.2 to 24.4percent variations in depression is explained or caused by gender and age changes. Hence, the unexplained R² variations of 81.8 to 75.6percent (obtained by subtracting the R² by 100 percent) can be attributed to other prominent variables affecting depression that were not included in the regression estimate. Furthermore, the positive value of the coefficient for gender (β = .184) and age (β = -.288) was significant and showed that increase femaleness increases depression while increase in age reduces depression among learners. Therefore, the hypothesis was rejected. This implies that gender and age does significantly predict depression among public university undergraduates in Edo State, Nigeria.

Hypothesis 2: Gender and age does not significantly predict anxiety among public university undergraduates in Edo State, Nigeria

Table 2: Binary Logistic Regression (BLR) on the effect of Gender and Age predictors on Anxiety

	B	S.E.	Wald	df	p-value	Exp(β)	95% C.I. for Exp(β)	
							Lower	upper
Gender	.952	.232	16.825	1	.000	2.592	1.644	4.086
Age	-.154	.039	15.592	1	.000	1.166	1.040	3.888
Constant	-2.538	.679	13.970	1	.000	.079		

Model Diagnostics: Cox & Snell R² = .182 Nagelkerke R-Square = .240
Chi-square (X²) = 14.642 Classified cases = 67.6%

Data in Table 2 showed that the Cox & Snell R² of 0.182 and Nagelkerke R² of 0.240 are the coefficients of determination which explains the good fitness of fit of the logistic model. The R² coefficient explains the extent of prediction and thereby showed that 18.2 to 24.0percent variations in anxiety is explained or caused by gender and age related changes in the students. Hence, the unexplained R² variations of 81.8 to 75.percent (obtained by subtracting the R² by 100 percent) can be attributed to other prominent variables affecting anxiety that were not included in the regression estimate. Also, Wald coefficient for gender (16.825) and age (15.592) were significant (p<0.05) since the p-value (p=0.000) was less than the level of significance (α = 0.05). Therefore, the null hypothesis was rejected. This implied that gender and age significantly predict anxiety among public university undergraduates in Edo State, Nigeria.

Discussion

The result showed that gender significantly predicts depression and anxiety among undergraduates in Edo State, Nigeria. The result agrees with that of Ekundayo and Kolawole (2021) who found that a significant gender influence on the level of depression among secondary school students. The result is in line with that of Chellamuthu (2017) who stated that male students experience more academic depression and anxiety than their female counter among students of high school students. The result agrees with that of Abiodun and Oluwafunto (2018) who revealed that self-reported cases of mild depression and anxiety was more than that of severe depression and difference on gender indicated that overall rate of depression for females (37.30%) was higher than that of males (34.64%).

The result showed that age significantly predicts depression and anxiety among undergraduates in Edo State, Nigeria. The result agrees with that of Aam, Safiyanu and Adamu (2017) who found that there is a significant relationship between age and academic depression among secondary students in Bauchi – Nigeria. The result is in line with that of Akande, Olowonirejuaro and Okwara-Kalu (2020) who noted that gender difference significantly product depression in the level of depression and anxiety among secondary school students.

Conclusion

Depression and anxiety are debilitating and worrisome emotional challenge that are common among learners. Based on findings, it is concluded that depression was predicted by gender and age related changes among undergraduate students in Edo State, Nigeria.

Recommendations

Arising from the findings, are the following recommendations:

- 1) Guidance and counselling unit should be employed in all faculties to afford students the opportunities of receiving information and orientation services about how to boost their stress and anxiety management skills to mitigate depressive disorder.
- 2) Gender and age-targeted counselling on depression and anxiety management should be encouraged in higher institutions of learning in Edo State. This would help to promote emotional stability of both young and old students in universities in Edo State.

References

- Aam, M., Safiyanu, S. S. & Adamu, T. B. (2017).Correlates of level of study and Academic Stress among secondary school students at Abubakar Tafawa Balewa University, Bauchi – Nigeria. *International Journal of Education and Evaluation*. 3(9), 12-16.
- Abiodun, M. G. & Oluwafunto, J. S. (2018). Prevalence and gender difference in self-reported depressive symptomatology among Nigerian university students: implication for depression counselling. *British Journal of Guidance & Counselling*, 33(2), 129 - 134
- Akande , J. A., Olowonirejuaro, A. O. & Okwara-Kalu, C. E. (2020). A Study of Level and Sources of Stress among Secondary School Students. *IOSR Journal of Research and Method in Education (IOSR-JRME)*. 4(5), 32-36.
- Alan, H.S. & Elaine, Y.L.(2020). *Work stress of teachers from primary and secondary schools in Hong Kong*. Retieved from <http://www.iaeng.org>>IMECS2010
- Busari, A. O.(2021). The level of stress experience among undergraduate students of university of Ado Ekiti, Emmanuel Alayande Campus Oyo. *Mediterranean Journal of Social Sciences*. 5(27), 599-609.
- Chellamuthu, S. (2017).Explored the gender differences and its relationship with academic stress experienced among high school students. *Article in Indian Journal of Applied Research*, 2(1), 11-11
- Epkins, J.L (2016). *Children’s Witness of Adult Domestic Violence*. *Journal of Child Psychiatric* 23, 285-290.
- Ibrahim, A.K., Kelly, S.A., Adams, C.E. & Glazebrook, C.A. (2021).A systematic review of studies of depression prevalence in university students. *Journal Psychiatry Research* 47: 391 – 400.
- Lotfi, M.H. Aminian, A.H., Ghomizada, A. & Zarea, S. (2020). Prevalence of depression amongst students of Shaheed Saoughi University of Medical Sciences, Yazd, Iran. *Iran Journal Psychiatry Behaviour Science*, 4(3), 1 – 12

- Nwimo, N. O. & Onwunaka, C. (2020). Stress among Secondary School Teachers and students in Ebonyi State, Nigeria: Suggested Interventions in the Worksite Milieu. *Journal of Education and Practice*.6(26), 93- 98.
- Olaitan, O.L., Oyerinde, O. O., Obiyemi, O. & Kayode, O. O (2016). Prevalence of school stress among primary school students in South-West, Nigeria. *African Journal of Microbiology Research*. 4 (5), 339-342
- Omomia, T. A., Omomia, O. A., Chimezie, C. U. & Akinwale, G.(2020). Perceived impact of stress on the academic achievements of Biology students in Education District IV of Lagos State. *Published in the Russian Federation European Journal of Psychological Studies*. 3(3), 85 – 96.
- Osha, E.U. (2020). What causes work-related stress in teachers? Retrieved from <http://www.ripublication.com/ijepa.html>, on July 8, 2015
- Yalemwork, G. (2020). *Depression among Addis Ababa University Students Sidist Kilo Campus: Prevalence, Gender Difference and other Associated Factors* (Master thesis on the internet) Addis Ababa University