DEMOGRAPHIC PREDICTORS OF ACADEMIC STRESS AMONG UNIVERSITY STUDENTS IN BAYELSA STATE

[1]Dennis, Emmanuel Akpoebi
[1]**E-mail:** emmanueldennis2001@gmail.com
[1]Department of Educational Psychology, Guidance and Counselling, Isaac Jasper Boro College of Education, Sagbama

ABSTRACT

The study investigated demographic variables as predictors of academic stress among university students in Bayelsa State, Nigeria. Three research questions were answered and three hypotheses were tested at 0.05 level of significance. The design of the study was correlational. The population of the study was 9,504 first year university students (regular). The sample size for the study was 670 university students (343 males and 327 females). Simple random sampling and proportionate stratified random sampling methods were used to obtain the sample. Two instruments were used for data collection: a self-designed Academic Stress Scale (ASS), and a demographic form. Face, content, and construct validities were determined for the instrument. The reliability of ASS instrument was determined with the Cronbach alpha technique. ASS had a coefficient of .75. The research questions were answered by means of simple and multiple regression while the hypotheses were analysed with ANOVA associated with simple and multiple regression. The findings showed that gender, marital status, and age significantly predicted university students' academic stress by 4.9%, 1.5%, and 1.3% respectively. The researcher recommended that university students separated from their spouses should visit counselling units regularly to cope with academic stress.

Keywords: Academic stress, age, gender, marital status, university students

INTRODUCTION

School life can be very stressful for university students, especially with new experiences and challenges they encounter. Stress among university students in Nigeria may take the form of academic stress triggered by factors namely academic demands, financial hardships, time pressures, and health issues (Ekpenyong, Daniel & Aribo, 2013; Nakalama & Ssenyonga, 2013). They face a lot of pressure at school. This could be to achieve high grades, meet parental academic targets for them, complete schoolwork and homework, and graduate on time.

Academic stress, according to Sarita (2015, pp 385-386), refers to "the unpleasant psychological situations that occur due to the educational expectations from parents, lecturers, peers, and family members, pressure from parents for academic achievement, present educational and examination system, burden of homework, etc". Similarly, Wilks (2008, p.107) notes that academic stress "is a product of a combination of academic-related demands that exceed the adaptive resources available to an individual".

Academic stress can adversely affect students' performance and health. It has been noted that "under academic stress the performance gets hindered and students can take wrong decisions under the influence of stress" (Sarita 2015, p. 387). Academic stress can have a negative impact on students, and it can affect their physical, mental, emotional and social well-being. It leads to

poor performance in schoolwork (Essel & Owusu, 2017). High levels of academic stress that continue without relief can negatively impact students' physical health. Stress has been associated with six of the leading causes of death: heart disease, cancer, lung ailments, accidents, cirrhosis of the liver, and suicide (Clevland Clinic, 2015). Academic stress can also impact the emotional health of students. This point is highlighted by Cleveland Clinic (2015) when it wrote that distress gives rise to emotional problems such as depression, panic attacks or other forms of anxiety and worry. According to Mills, Reiss, and Dombeck (2008), researchers in psychoneuroimmunology suggest that chronic stress can lead to, or aggravate, mood disorders such as depression and anxiety, bipolar disorder, cognate problems, personality changes, and problem behaviours. Emotional effects of stress may include overeating, feelings of anger, frustration, being overwhelmed or pressured, bad temper, increased irritability, and loss of sense of humour. Like a web, the psychological effects of stress namely cognitive and emotional problems such as irritability, depression, and frustration can affect students' ability to forge mutually beneficial social relationships and/or maintain such. The researcher presumed that demographic variables may have association with academic stress.

Gender

Gender is a demographic variable the researcher presumed to have association with academic stress. It is the fact of being male or female. Gender is generally regarded as a set of cultural and social characteristics that are associated with being either male or female. It has been acknowledged that men and women react differently to stress, both physically and mentally (American Psychological Association, 2010). Gender-specific differences in stress reactivity have become better known as researchers measure physiological responses to acute stressors in laboratory settings (Verma, Balhara & Gupta, 2011). It has been noted that gender-specific differences in reactivity to stress may be dependent on the type of stressor/challenge, experimental procedure, outcome measured and subject status (Dikerson & Kemeny, 2004). Generally speaking, women experience more stress than men, and this has been predicated on women's tendency to 'ruminate' more about stressors (Assari, 2016).

DaSilva (2016) studied predictors of stress, socioeconomic differences in levels of stress, and coping strategies among Caribbean Community College Students. One of the findings of the study is that gender is not a significant predictor of stress among students. Thus being a male does not significantly predict stress level ($\beta = -4.07$, $p = 0.08$). Beheshti (2015) studied the extent gender predicted job stress among registered and full-time nurses of hospitals affiliated to Gonabad University of Medical Sciences, Iran. It was found that gender was a significant predictor of job stress ($\beta = -0.201$, $p < 0.05$). In their study, Ozutku and Altindis (2011) examined the extent gender predicted work stress of health professionals in state hospitals in Turkey.The result shows that gender is a significant predictor of work stress ($\beta = 0.105$, $P < 0.05$).

Age

Age is another demographic factor that may predict academic stress in students. It is defined as the "number of years someone has lived or something has existed" (Summers, as cited in Williams & Iruloh, 2014, p.73). Students in universities, even those in a particular year of study, may vary in chronological age. Granted, stress affects people of all ages. The variation in age, besides factors related to stressors students may be exposed to, can account for differences in an individual's susceptibility or resistance to stress in school. Age as a factor intrinsic to the individual is believed to shape stress response.

Age is closely related to cognitive abilities, as some of them continue to improve with age until they peak and decline at a certain age (Salthouse, 2009). Cognitive factors are one reason why people react differently to the same stressors (Lahey, 2014). Besides, age could be associated with a wide range of experiences, especially stressful activities or events we encounter in life, which can influence our perceptions of such events over time. Why? The reason is that "stress reactions are generally less severe when the individual has had some prior experience with stress events" (Lahey, 2014, p.512).

A study by Ratansiripong et al. (2016) explored the levels of depression, anxiety and stress among SME workers in Indonesia, Malaysia, Thailand, and Vietnam. One of the study's findings is that age is not a significant predictor of stress of SME workers ($\beta = 0.016$, $p = 0.562$). DaSilva (2016) found that age of students was not a significant predictor of stress level of students.
Akhtar (2012) investigated acculturative stress and its association with academic stress and the psychological well-being of international students. Some of the study findings are that age is a significant predictor of acculturative stress among international students. Age also significantly predicted academic stress of only German students. Growing age was associated with a higher level of academic and acculturative stress among German and international students respectively. In another study, Ozutku and Altindis (2011) investigated the extent age predicted work stress of health professionals in state hospitals in Turkey. The finding shows that age does not significantly predict work stress ($\beta = 0.015$, $p > 0.01$).

Marital Status

Marital status is another demographic factor intrinsic to students which may have an association with academic stress. This refers to the state of being married or not married. It is used to refer to any of the many distinct options that describe a person's current relationship state or arrangement. Those distinct options may be married, single, separated, divorced or widowed.

Personal experience shows that a marriage in which spouses are caring, loving and supportive of each other can act as a buffer against stress. Spouses in such marriage can experience less stress as they meet the physical, emotional and social needs of each other. However, in marriages where spouses are unloving and non-supportive to their partners, this can cause a lot of stress. Single people are said to have less stress (Fernandez, 2014). Personal observations show that they could have more of their share of negative affects such as sadness, depression and loneliness. Perhaps the longer people stay single, as some believe, the greater the risk of jeopardizing their chances of finding a suitable mate. However, not all single people desire to get married. DePaulo (2017) acknowledged that people who do not want to be single probably experience more of the negative emotions of single life.

Marital separation, as the researcher observed, comes with some uncertainty and anxiety. Since the separated person is still tied to the person he/she doesn't want to be or is trying to achieve reconciliation. Divorce is one of the most stressful life events. It has been observed that in a short term, people who are divorced experience emotional challenges. The widowed, as personally observed, can experience a great sense of loss of a loved one and grief. This is true because spousal death is a negative life event that causes a lot of stress (Lahey, 2014). In light of the foregoing discussion, the researcher, therefore, wishes to investigate the extent these demographic variables predict academic stress of university students.

The finding of Ratanasiripong et al. (2016) shows that marital status is a significant predictor of work stress among respondents (β = 0.082, p = 0.003). The study findings of DaSilva (2016) show that marital status is a significant predictor of stress level of students. Ozutku and Altindis (2011) found that marital status is not a significant predictor of work stress (β = 0.040, p > 0.01).

STATEMENT OF PROBLEM

Tertiary education is a key component in our educational system that prepares students with requisite skills, knowledge and training for their professional development and employment. For students at this level of education to be able to learn at their peak capacity, they need to be physically, emotionally, and intellectually healthy. Academic stress is one factor that can impede their ability to learn, express their knowledge and skills, and remain healthy.

Academic stress can hinder students' performance which can lead to school dropout. It can cause depression, sleep problems, memory problems, poor judgment, and other physical, emotional, and mental health problems for students. It can even lead to suicide.

Considering the adverse effects of academic stress on students, the researcher desires to provide help in curbing this phenomenon by determining the degree of influence of demographic variables in contributing to academic stress of university students.

AIM AND OBJECTIVES OF THE STUDY

The aim of the study was to determine the extent demographic variables predict academic stress among university students. Specifically, the study was designed to:

1. Determine the extent gender predicts academic stress among university students.
2. Ascertain the extent marital status predicts academic stress among university students.
3. Find out the extent age predicts academic stress among university students.

RESEARCH QUESTIONS

The following research questions guided the study:

1 To what extent does gender predict academic stress of university students?
2 To what extent does marital status predict academic stress of university students?
3 To what extent does age predict academic stress of university students?

HYPOTHESES

The following null hypotheses were formulated by the researcher to guide the study.

1. Gender does not significantly predict academic stress among university students.
2. Marital status does not significantly predict academic stress among university students.
3. Age does not significantly predict academic stress among university students.

METHODOLOGY

The research design of the study was correlational. The population of the study consisted of 9,504 first year (regular) students in different faculties of the Niger Delta University, Federal University Otuoke, and the University of Africa in Bayelsa State. A sample of 670 university students was used for the study. The sample size of 670 students was drawn by simple random and proportionate stratified random sampling techniques. The researcher used the Academic Stress Scale (ASS), and a demographic form for collecting demographic data. ASS is a univariate, non-cognitive instrument designed by the researcher to assess academic stress of university students. ASS contains 21 items with a modified 4-point Likert response format of strongly agree (SA) 4 points, agree (A) 3 points, disagree (D) 2 points, and strongly disagree (SD) 1 point. The

reverse applies to negatively keyed items. Face and content validities of the instrument were determined by experts in Measurement and Evaluation. The reliability of the instrument for the study was determined with the Cronbach alpha technique. A Cronbach Alpha value of .75 was obtained for the Academic Stress Scale (ASS). Construct validity of the ASS was done with a standardized instrument namely educational stress by Sun, Dunne, Hou, and Xu, (2012). Convergent method of determining construct validity was employed, using Pearson Product Moment correlation. The construct validity for ASS was .77 The research questions were answered by means of simple and multiple regression while the hypotheses were analysed with ANOVA associated with simple and multiple regression. Statistical decision was made at 0.05 level of significance.

RESULTS

Research Question One

To what extent does gender predict academic stress of university students?

Table 1a: Model summary of simple regression on the prediction of gender on academic stress

Variables	N	$\overline{X}$	SD	R	R^2	Adjusted R	Std. Error of the estimate
Male Female	343 327	54.2624 58.2294	8.94139 8.51700	.222	.049	.048	8.73685

Table 1a shows that the correlation coefficient between gender and academic stress of university students is .222 while the R^2 and the adjusted R^2 values are .049 and .048 respectively. The result shows that gender positively predicts university students' academic stress by 4.9%.

Hypothesis One

Gender does not significantly predict academic stress among university students.

Table 1b: ANOVA associated with simple regression on the prediction of gender on academic stress

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2634.416	1	2634.416	34.512	.000[b]
	Residual	50990.183	668	76.333		
	Total	**53624.599**	**669**			

a. **Dependent Variable:** academic stress

b. **Predictors:** (Constant), gender (male, female)

The result in table 1b above shows that the calculated F value of 34.512 at 1 and 668 degrees of freedom is significant at .000 with 0.05 alpha level. Thus, the null hypothesis one is rejected. This means that gender significantly predicts academic stress among university students.

Research Question Two
To what extent does marital status predict academic stress of university students?

Table 2a: Model summary of multiple regression on the prediction of marital status on academic stress

Variables	N	$\overline{X}$	SD	R	R^2	Adjusted R	Std. Error of the estimate
Married Single Separated Divorced Widowed	100 538 18 12 2	57.5300 55.7416 61.3889 58.1667 54.0000	10.55573 8.70487 6.19429 6.17669 .00000	.124	.015	.010	8.91007

Hypothesis two: Marital status significantly predicts academic stress among university students.

Table 2a reveals that the correlation coefficient between marital status and academic stress of students is .124 while the R^2 and the adjusted R^2 are .015 and .010 respectively. The result shows that marital status predicts students' academic stress by 1.5%.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	830.657	4	207.664	2.616	.034[b]
	Residual	52793.942	665	79.389		
	Total	**53624.599**	**669**			

a. Dependent Variable: academic stress
b. Predictors: (Constant), marital status (married, single, separated, divorced, widowed)
The result in table 2b above shows that the calculated F value of 2.616 at 4 and 665 degrees of freedom is significant at .034 with 0.05 alpha level. Thus, null **hypothesis two** is rejected. This means that marital status significantly predicts academic stress among university students.

Research Question Three
To what extent does age predict academic stress of university students?

Table 3a: Model summary of multiple regression on the prediction of age on academic stress

Variables	N	$\overline{X}$	SD	R	R^2	Adjusted R	Std. Error of the estimate
21yrs and below 22-30yrs 31yrs and above	337 242 91	55.8309 55.7562 58.7363	9.44870 9.00268 6.16051	.113	.013	.010	8.90948

Table 3a shows that the correlation coefficient between age and academic stress of students is .113 while the R^2 and the adjusted R^2 values are .013 and .010 respectively. The result shows that age predicts students' academic stress by 1.3%.

Hypothesis Three
Age does not significantly predict academic stress among university students.

Table 3b: ANOVA associated with multiple regression on the prediction of age on academic

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	678.953	2	339.477	4.277	.014[b]
	Residual	52945.645	667	79.379		
	Total	**53624.599**	**669**			

a. **Dependent Variable:** academic stress
b. **Predictors:** (Constant), age (21yrs and below, 22-30yrs.,31yrs and above)

The result in table 3b above shows that the calculated F value of 4.277 at 2 and 667 degrees of freedom is significant at .014 with 0.05 alpha level. Age is a significant predictor of academic stress. Thus, null hypothesis three is rejected. This implies that age significantly predicts academic stress among university students.

DISCUSSION OF FINDINGS

Gender and Academic Stress among University Students in Bayelsa State

One finding of this study showed that gender predicted students' academic stress by 4.9%. This means that we can explain 4.9% of variations in academic stress scores by reference to gender of students while the remaining 95.1% is attributed to other factors. This is similar to the range of prediction of job stress by gender as reported by Beheshti (2015). Females were more stressed than male students. A plausible explanation for such difference in stress is hormone, as males secrete a smaller amount of oxytocin than females. Gender had a low positive relationship with academic stress. This shows that being a male or female influences academic stress experience of university students. The hypothesis revealed that gender significantly predicted academic stress among university students. Gender was found to be a significant predictor of stress by Beheshti (2015) and Ozutku and Altindis (2011). A contrary finding was reported by DaSilva (2016), that gender was not a significant predictor of stress of students. The possible reasons for the discrepancy in findings could be that DaSilva assessed general stress of students while the present study assessed academic stress, and the present study used a larger sample size.

Marital Status and Academic Stress among University Students in Bayelsa State

In this study, marital status predicted students' academic stress by 1.5%. This shows that we can account for 1.5% of variations in academic stress by reference to marital status of students while the remaining 98.5% is attributed to other factors. Students who were separated from their spouses had the highest mean score of academic stress. This is not surprising because the separated face stress more than the divorced because they are in a state of limbo - either tied to somebody they don't want to be with or trying to reunite with a person who doesn't need them. Marital status had a very low positive relationship with academic stress. The hypothesis revealed that marital status significantly predicted academic stress among university students. On marital status, it was found to be a significant predictor of stress. This agreed with the

findings of Ratanasiripong et al. (2016) and DaSilva (2016). However, a contrary finding by Ozutku and Altindis (2011) showed that marital status was not a significant predictor of work stress. Dissimilarities in findings between the previous and the present study might have been influenced by differences in sample size (462; 670), the nature of sample (health professional; university students), and the study's locale (Turkey; Nigeria).

Age and Academic Stress among University Students in Bayelsa State

This study found that age predicted students' academic stress by 1.3%. This shows that we can account for 1.3% of variations in academic stress by reference to the age of students while the remaining 98.7% is attributed to other factors. This was however higher than the explained variance (of .03%) reported by Ratanasiripong et al. (2016). Older students (aged 31yrs and above) experienced more academic stress than younger ones. This was not expected by the researcher because age is closely related to cognitive ability, which constitutes one reason why students react differently to the same stressors. However, age of students had a very low positive relationship with academic stress of students. This shows that academic stress depends, to an extent, on the age of students. The hypothesis revealed that age significantly predicted academic stress among university students. Age was reported as a significant predictor of stress (Akhtar, 2012). But contrary findings reported by DaSilva (2016), Ratanasiripong et al. (2016), and Ozutku and Altindis (2011) showed that age was not a significant predictor of general and work stress respectively. Besides the smaller sample sizes used in the previous studies, the three of them being foreign and differences in the nature of the sample and the research instrument might influence the directions of the findings.

CONCLUSION

Based on the findings of the study, it was concluded that demographic variables such as gender, marital status, and age have been found to significantly predict academic stress among university students in Bayelsa State.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made.

1. Students, especially females, should put in more effort to cope with academic stress, and periodically seek help from counsellors. Besides, university students separated from their spouses should visit counselling units regularly to develop effective coping strategies for academic stress.
2. Older students (in terms of age) should become more aware of their vulnerability to academic stress and evolve measures to curb or cope with it. University administrators should give priority attention to this category of students in their academic orientation programmes.

REFERENCES

Akhtar, M. (2012). *Acculturative stress and its association with academic stresss and psychological well-being of international students*. Unpublished Dissertation, der Georg-August-Universitöt Göttingen.

American Psychological Association (2010). Gender and stress. *http://www.apa.org/news/press/release/stress/2010/gender-stress.aspx.*

Assari, S. (2016). Why stress is more likely to cause depression in men than in women. *www.theconversation.com/why-stress-is-more-likely-to-cause-dpression-in-men-than-in-women-57624.*

Baqutayan, S.M.S. (2015). Stress and coping mechanisms: A historical overview. *Mediterranean Journal of Social Sciences*, 6(2), 479-488.

Beheshti, M.H. (2014). The role of personality traits and demographic factors in occupational stress. *Journal of Occupational Health and Epidemiology*, 3(3), 132-139.

Cleveland Clinic (2015). Stress. *https://my.clevelandclinic.org/health/articles/11874-stress.*

DaSilva, J. (2016). *Predictors of stress among Caribbean community college students*. Unpublished Doctoral Dissertation, Walden University.

DePaulo, (2017). The emotional life of single people. *https://www.psychologytoday.com/us/blog/living-single/201708/the-emotional-life-single-people.*

Dickerson, S.S., & Kemeny, M.E. (2004). Acute stressors and cortisol responses: A theoretical integration and synthesis of laboratory research. *Psychological Bulletin*, 130(3), 355-391.

Ekpenyong, C.E., Daniel, N. E., & Aribo, E.O. (2013). Associations between academic stressors, reaction to stress, coping strategies and musculoskeletal disorder among college students. *Ethiopian Journal of Health Science*, 23(2), 98-112.

Essel, G., & Owusu, P., (2017). *Causes of students' stress, its effects on their academic success, and stress management by students*. Unpublished Thesis, Faculty of Business Administration, Seinäjoki University of Applied Sciences, Finland.

Fernandez, E. (2014). Single people have a scientifically proven advantage over the rest. *https://m.mic.com/articles/105176/science- shows-5-reasons-why-single-people-have-an-awesome-advantage.*

Lahey, B.B. (2004). *Psychology: An Introduction (8th ed.)*. McGraw-Hill Companies Inc.

Mills, H., Reiss, N., & Dombeck, M. (2008). Mental and emotional impact of stress. *https://www.mentalhelp.net/articles/mental-and-emotional-impact-of-stress/*

Nakalema, G., & Ssenyonga, J. (2013). Academic stress: Its causes and results at a Uganda University. *African Journal of Teacher Education*, 3(3).

Ozutku, H., & Altindis, S. (2011). Big five personality factors and other elements in understanding work stress of Turkish health care professionals. *African Journal of Business Management*, 5(26), 10462-10473.

Ratanasiripong, P., Kaewboonchoo, O., Bell, E., Haigh, C., Susilowati, I., Isahak, M., Harncharoen, K., Nguyen, T., & Low, W.Y. (2016). Depression, anxiety and stress among small and medium enterprise workers in Indonesia, Malaysia, Thailand, and Vietnam. *International Journal of Occupational Health and Public Health Nursing*, 3(2), 13-29.

Salthouse, T.A. (2009). When does age-related cognitive decline begin? *Neurobiol Aging*, 30(4), 507-514.

Sarita, S. (2015). Academic stress among students: Role and responsibilities of parents. *International Journal of Applied Research*, 1(10), 385-388.

Sun, J., Dunne, M.P., Hou, X., & Xu, A. (2012). Educational stress for adolescents: Development, validity, and reliability with Chinese students. *Journal of Psychoeducational Assessment*, 29 (6), 534-546.

Verma, R., Balhara, Y.P.S., & Gupta, C.S. (2011). Gender differences in stress response: Role of development and biological determinants. *Industrial Psychiatry Journal,* 20 (1), 4-10.

Wilks, S.E. (2008). Resilience amid academic stress: Moderating impact of social support among social work students. *Advances in Social Work,* 9(2), 106-125.

Williams, E., & Iruloh, B.N. (2014). The attitude of HIV/AIDS patients toward antiretroviral drugs in Bonny Local Government Area, Rivers State. *Nigerian Journal of Empirical Studies in Psychology and Education,* 1(14), 71-80.