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Implications of Stress and Study Habits on Academic Outcome of Undergraduate Nursing Students in Selected Universities in South-West, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. Author SM designed the study and wrote the protocol. Author AO performed the statistical analyses while author OLA managed the literature searches and wrote the first draft of the manuscript. All authors read and approved the final manuscript.

Article Information

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ABSTRACT

Introduction: Stress is a physical and emotional reaction that individuals exhibit as a result of the threat from demanding circumstance(s). Excessive exposure to stress may result in mental and physical problems which may diminish a student's sense of worth and might affect his or her academic outcome. This high level of stress has been widely reported among undergraduate nursing students throughout their academic program.

Aims: This study determined the implications of stress and study habit on the academic outcome of undergraduate nursing students.

Study Design: A descriptive cross-sectional design was used for this study.

Place and Duration of Study: Department of Nursing, Ladoke Akintola University of Technology, Osogbo Osun State and Babcock University, Ilishan-Remo Ogun State between April, 2018 and May, 2018.

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Methodology: A convenient sampling technique was used to select 156 participants from a target population of 762 undergraduate students (200 – 500 Level) in the selected institutions. Data were obtained using a self-developed questionnaire which consists of three sections that address the objectives of this study. Hypotheses were tested at 5% level of significance.

Results: Findings from the study show that 20.1% of the respondents usually experience tiredness when they are about to study, 22% reported using stimulants to help them read for a longer period. Furthermore, 42.0% of the student engaged in personal studies and 41.4% used group discussions. 23.7% of the students claimed that proper preparation for tests and examinations improved their academic outcome. Overall, 57.7% of the respondents go through moderate level of stress while 9.6% go through high level stress. The findings from the study show that there is no significant association between studying habits and academic outcome of the undergraduate nursing students (p. Value > 0.005).

Conclusion: Nursing students (who are the future nurses), face considerable levels of physical, psychological and mental stress during the course of their training, which in turn affects their academic performance. There is also no significant association between studying habits and academic outcome of the undergraduate nursing students (p. Value > 0.005). It is therefore important to identify stressors among such students and equip them with and/or provide appropriate coping mechanisms that can help the students adjust to stressful situations, and in turn emerge as excellent health care professionals.

Keywords: Implication; stress; study habit; academic outcome; undergraduate nursing students in south-west Nigeria.

1. INTRODUCTION

Stress is the physical and emotional response individuals have to events that threaten them and is rooted in the primitive fight or flight response adapted into human and non-human animals [1]. It is a state of mental or emotional strain or tension resulting from adverse or demanding circumstances. It affects every individual and has a powerful impact on the mind and on the individual's health and well-being. It is also defined as a psychological response to an environmental demand that occurs after an individual perceives that he/she is unable to adequately cope with the present demand [2]. Undergraduate college students have reported experiencing increased levels of stress during the academic year [3]. Balancing school schedules and work schedules, preparing for examinations, taking examinations and balancing personal life with demands of school are all causes of stress in a student's life [4].

Stress levels among students have been investigated and it was found that Nursing students reported higher levels of stress than Pharmacy students, Physical Therapy students and students in Dentistry, Medicine and graduate school. Nursing students reported higher stress scores for academic and external stressors. Nursing students also reported higher overall levels of stress than other professional students, medical students and graduate students [5]. It was also observed that undergraduate nursing students have emotional and physical problems during their undergraduate programme and training in the university. Meanwhile, there are limited studies in Nigeria addressing the experiences of undergraduate nursing students who may suffer similar stress experiences [6].

Nursing students face not only academic stress but also have work stresses during their training period [7]. Excessive stress may result in mental and physical problems and may diminish a student's sense of worth and might affect his or her academic outcome [8]. Academic sources of stress include examinations, fear of failure and workload while clinical sources of stressors include clinical placements, fear of making mistakes and interaction with other staff, patients and their relatives.

Reports exist of students' poor academic outcomes in the Nigerian educational system [9]. These poor performances cut across different fields of education including nursing education. The poor knowledge can lead to poor academic performance manifested by poor professional skills required for nursing procedures [10]. A poorly trained nurse becomes a threat to the lives of the patients and further compounds the already poor state of the healthcare in Nigeria [11].

Academic outcomes represent the skills, knowledge and abilities that students develop

through their course work and other educational experiences [12]. Academic outcome is the ability of the students to cope with their studies as well as how various tasks assigned to them by their instructors are accomplished. It also includes the ability to study and remember facts and to be able to express such knowledge gained either verbally or in writing [13].

Academic outcome is one of the top priorities for schools [14]. It is the outcome of education and the extent to which a student, teacher or institution has achieved their educational goals. It is to a great extent a function of students' study habit, especially among nursing students. There exists a relationship between the study habit and academic outcome of undergraduate nursing students in most underserved countries [15].

Nursing is regarded as a demanding and stressful profession [16]. Nursing students experiencing high levels of stress tend to experience poor study habit which they exhibit by poor co-ordination and lowered assimilation and thus will negatively have an adverse effect on their academic outcome. The negative effect of undue stress among nursing students has caused an increasing rate of poor academic outcome of students [2]. Against this background, the study is set to examine the perceived effect of stress and study habits on the academic outcome of undergraduate nursing students in selected universities in Nigeria.

2. METHODOLOGY

A cross-sectional descriptive research design was used to investigate the implications of stress and study habit on academic outcome of undergraduate nursing students in two purposively selected universities in South-west Nigeria offering the Baccalaureate Nursing Science Program. The target population was undergraduate students studying full time in the Ladoke Akintola University of Technology, Osogbo Osun State, and Babcock University, Ilishan-Remo Ogun State. The study population however, comprised of undergraduate nursing students in 200-500 levels studying full-time in Ladoke Akintola University of Technology, Osogbo Osun State and Babcock University, Ilishan-Remo, Ogun State.

Ladoke Akintola University of Technology (LAUTech) is a State institution jointly owned by Oyo and Osun States. The department of nursing currently has a total of 317 students studying full time with 72 in 100L, 60 students in 200L, 65 students in 300L and 62 students and 58 students in 400L and 500L respectively. However, total sample in 200 – 500 level students participant is 245. Babcock University, on the other hand, is a private Christian coeducational Nigerian university, owned and operated by the Seventh Day Adventist Church in Nigeria. The institution currently has 50 students in 100L, 48 students in 200L, 49 students in 300L, 42 students in 400L and 43 students in 500L, with a total of 232 students. Meanwhile, only 182 students in 200 – 500L were selected.

The study population was determined using Taro Yamane's formula for sample size determination where $n = \frac{N}{1+N(e)^2}$ and 'e' is the precision rate at 0.05 while 'N' is the target population (which was 427 for both universities) and gave a study population of 156 which was the number of undergraduate nursing students that participated in this study. This number was then proportionately allocated between the two universities and therefore, 77 undergraduate nursing students were selected from LAUTech while 79 were selected from Babcock University.

The research instrument for the study was a researcher-developed questionnaire which had three (3) sections A-C. Section A consists of 14 items on the demographic characteristics of the participants. Section B consists of 18 items that could measure the respondent's perceived level of stress and study habit. Section C consists of 6 items that could measure the academic outcome of undergraduate nursing students. The face and content validity of the instrument was determined by the researcher's supervisor who ascertained that the items on the questionnaire will be able to elicit responses necessary to answer the research questions. The reliability of the instrument was determined by using a pilot study in which twenty-four (24) questionnaires were administered to undergraduate nursing students in the Department of Nursing, University of Ibadan. Data collected were computed and the reliability co-efficient analvzed. thus (Crobanch alpha) was estimated. A value of 0.70 was recorded and same was accepted.

The researcher together with a recruited research assistant obtained the data for this study between April, 2018 and May, 2018 simultaneously in both research settings. Data were then collated, organized and analyzed using Statistical Package for Social Sciences (SPSS) for Windows Version 20. Data was

presented using frequency tables, charts and percentages and hypotheses were tested at 5% level of significance.

3. RESULTS

3.1 Socio-Demographic Descriptions of the Study Participants

The Table 1 consists of the social and demographic characteristics of respondents.

Items were expressed in terms of percentage and frequency. Results from the study indicate that the greatest proportion of the students, 82.7% were aged between 20-29 years, 91.7% of them are single, and 75% of them are Christians, while 75% were Yoruba. A little over half of them, 50.6% attend Bowen University, and 37.2% were in their 500 level. The greatest proportion, 87.2% are females, while 21.8% earn less than ₦10,000. More so, 77.6% come from nuclear families.

Socio-demographic characteristics	Frequency	Percent (%)
Age group		
17 - 19 years	24	15.4
20 - 29 years	129	82.7
30 - 46 years	3	1.9
Marital status		
Single	143	91.7
Married	13	8.3
Religion		
Christian	117	75.0
Muslim	36	23.1
Unspecified religion	3	1.9
Ethnic group		
Hausa	3	1.9
Igbo	26	16.7
Yoruba	117	75.0
Other sub-ethnic groups	10	6.4
Name of institution		
LAUTECH	77	49.4
BU	79	50.6
Level of study		
200L	18	11.5
300L	36	23.1
400L	44	28.2
500L	58	37.2
Gender		
Male	20	12.8
Female	136	87.2
Average monthly income (Ħ)		
Less than 10,000	34	21.8
11,000 - 20,000	60	38.5
21,000 - 30,000	19	12.2
More than 31,000	22	14.1
Undisclosed income	21	13.5
Type of family background/structure		
Nuclear monogamous	121	77.6
Nuclear polygamous	21	13.5
Extended polygamous	6	3.8
Adopted Family	3	1.9
Unspecified Family type	5	3.2

Pre-existing health conditions	Frequency	Percent (%)
Peptic ulcer	8	5.1
Sickle cell disease	2	1.3
Asthma	3	2.8
Arthritis	2	1.9
Menstrual pain	1	1.3
Malaria	1	0.6
Gingivitis	1	0.6
Муоріа	2	1.3
Glaucoma	1	0.6
None	135	86.5
Total	156	100.0

Table 2. Pre-existing health conditions of participants

	Table 3. Modes of	students'	accommodation,	sponsorshi	р&	admission
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Modes	Frequency	Percent (%)
Modes of accommodation		
Off campus	98	62.8
Campus hall	51	32.7
Campus quarters	3	1.9
Stays with family and comes from home	4	2.6
Source of sponsorship		
Self/parent	138	88.5
Other family members	6	3.8
Guardian	7	4.5
Scholarship	5	3.2
Modes of admission		
Pre-degree	34	21.8
UTME	112	71.8
Direct entry	9	5.8
Inter faculty transfer	1	0.6

3.2 Modes of Students' Accommodation, Sponsorship & Admission

The Table 3 reports the academic records of the students.

3.3 Students' Studying Records and Adopted Coping Strategies

The study tracked and reported (in the Table 4) the students' studying records and adopted coping strategies. Out of the 156 students studied, 20.1% usually experience tiredness when they are about to study. 62.2% assimilate best in the morning. A total of 22% were fond of making use of stimulants to help them read for a longer time than they are naturally capable. The stimulants used by the students include caffeinated tea bags, caffeinated coffee and Kola. More so, 54.5% assimilate and retain 51% to 75% of what they read.

3.4 Levels of Stress among Participants

On a rating scale, the stress rate ranged from 2 to 14; the mean stress rating was 6.8 ± 2.6 .

3.5 Testing of Hypotheses

 There is no significant association between the gender and academic outcome of the undergraduate nursing students last semester and last session respectively.

The findings of the study show that there is no significant association between the gender and academic outcome of the students last semester and last session respectively. (p-value > 0.05). Therefore, the null-hypothesis was not rejected (Tables 4 and 5).

2. There is no significant association between the studying habits and academic performance of the undergraduate nursing students last semester and last session respectively.

The findings of the study reveal that there is no significant association between the studying habits and the academic outcome of the nursing students last semester and last session respectively. (p-value>.05). Therefore, the null-hypothesis was not rejected (Tables 6 and 7).

3. There is no significant association between the perceived level of stress and academic performance of the undergraduate nursing students last semester and last session respectively. The findings of the study reveal that there is no significant association between perceived level of stress, and the academic outcome of the students last semester and last session respectively. (p-value> 0.05). Therefore, the null-hypothesis was not rejected (Tables 8 and 9).

Issues around participants' study	Frequency	Percent (%)
What best describes your feelings	• •	
Tired	50	20.1
Lack of concentration	21	8.4
Exhausted	38	15.3
Low level of Assimilation	28	11.2
Not applicable	19	12.1
Time of the day do you assimilate best		
Early morning	97	62.2
Mid-day	9	5.8
Evening	11	7.1
Mid-Night	39	25.0
Rating of level of assimilation and retention by participants		
0-25%	8	5.1
26%-50%	20	12.8
51%-75%	85	54.5
76%-100%	43	27.6
What other time do you also study		
Early morning	27	17.3
mid-day	18	11.5
Evening	55	35.3
Mid-Night.	56	35.9
What stimulants do you used most		
caffeinated tea bags	30	12.0
caffeinated coffee	25	10.0
Bitter cola	21	8.4
Junks	4	1.6
Not applicable	76	48.7

Table 4. Students' studying records and adopted coping strategies

 Table 5. Studying coping measures among non-users of stimulants

Measures of coping employed	Frequency	Percent (%)
Not applicable	33	21.2
Chewing gum	40	25.6
Walking around	30	19.2
Putting leg in water	2	1.3
Licking candy	1	0.6
drinking water	1	0.6
sweets and biscuits	1	0.6
Cool environment	3	1.9
Drinking water and eating snacks	2	1.3
Pressing phone for a little time	1	0.6
Listening to music	1	0.6
Sitting up	1	0.6
Play games	2	1.3
Nothing	38	24.4
Total	156	100.0

Studying habits	Frequency	Percent (%)
Studying styles		
Group discussion	64	41.4
Personal study	72	42.0
Role play	12	13.3
Tutorials	5	3.2
Listening to music while reading	3	1.9
No of hours of effective study during personal study		
1 hour	10	6.4
2 hours	33	21.2
3 hours	60	38.5
4 hours and more	53	34.0
Time in the semester participants study most		
From beginning of the semester	43	27.3
During tests and exams only	39	25.3
Only during exams	23	14.5
All through the semester	51	32.9

Table 6. Studying habits that lessen students' stress

Descriptions of stress	Frequency	Percent (%)
Physical	78	50.0
Emotional	18	11.5
Psychological	43	27.6
all of the above	3	1.9
Not really sure	14	9.0
Total	156	100.0

Table 8. Engaged activities of students for examination preparedness

Examination preparedness measures	Frequency	Percent (%)
Nothing else	87	55.8
Audio-visual instructional media	24	15.4
Lack of procrastination	2	1.3
Depending solely on God	4	2.6
Tutorials	12	7.7
Feeding & resting	3	1.9
Group discussion	16	10.3
Library use	1	0.6
Area of concentration	1	0.6
Setting questions for myself	1	0.6
Reading notes	4	2.6
Acronyms	1	0.6
Total	156	100.0

Table 9. Measures undertaken by students to achieve satisfaction with academic outcome

Measures	Frequency	Percent (%)
Measure to achieve satisfaction with academic outcome		
Proper preparation for tests and exams	37	23.7
Regularly attending classes	30	19.2
Attending night classes and tutorials	2	1.3
Holding group discussions	5	3.2
Not applicable	82	52.6

Measures	Frequency	Percent (%)							
Factors contributing to lack of satisfaction with academic outcome									
Inappropriate level of preparation	45	28.8							
Missing classroom instructions/lectures	6	3.8							
Failure to attend night classes and tutorials	3	1.9							
Failure to have group discussions	7	4.5							
Not applicable	73	46.8							
No traceable reason	22	14.1							

Table 10. Levels of stress among participants

Levels of stress	Frequency	Percent (%)
Mild stress (2-5)	51	32.7
Moderate stress (6-9)	90	57.7
High stress (10-14)	15	9.6
Total	156	100.0

Table 11. Academic performances of the students

	-	
Academic	Frequency	Percent
performances		(%)
Last semester GPA		
First Class	19	12.2
Second Class Upper	61	39.1
Second Class Lower	32	20.5
Third Class	3	1.9
Pass	41	26.3
Last session Grade of	CGPA	
First Class	15	9.6
Second Class Upper	63	40.4
Second Class Lower	35	22.4
Third Class	1	0.6
Pass	42	26.9

4. DISCUSSION

Exposure to stressors have become an inevitable part of the nursing student's experience as been reported by several studies, their ability to cope well can contribute significantly to their academic and personal success. Result from this study indicates that the greatest number of the nursing students earn less than #10,000 monthly. This is very meager considering the rising cost of goods and services in Nigeria today. This reflects that some of the students may have financial difficulties, which may contribute to their level of stress. A significant increased relationship has been established between financial problems and mental health problems. Limited financial resources also have a great impact on the strains associated with studying [17]. Furthermore, students who hail from a low socioeconomic background do not get enough financial support, and this in turn causes them to feel pressured and experience more stress [18].

Personal stressors identified among the students included lack of time management, control of emotions and confidence. This finding may be relevant for future research as more than half of the students studied, live outside the school campus, and thus, may have difficulties attending both academic and social activities. It was also found out that more than half of the students. 87.2% were females. This may be relevant to this study because some researchers have supported the fact that females are more stressed and scored higher in stress inventory than males [19]; while other studies showed that males were more stressed due to poor coping strategies [20]. However, some studies found no significant statistical difference among males and females respondents with regards to the coping strategies of problem-solving, staying optimistic, use of diversionary strategies and avoidance methods in Jordan [21].

The mostly described stress by the students is physical one, which accounts for 50% of stress described by them. Results from the study also indicate that 57.7% and 9.6% of the students, experience moderate and high levels of stress respectively, which adversely affects their physical, emotional and psychological health. These results are supported by extensive and compelling evidences[22]; high-stress levels in nursina students may affect memorv. concentration, problem-solving ability and may lead to decreased learning, coping, academic outcome and retention. High-stress levels have been specifically associated with depression, low self-esteem, poor adjustment to college, lack of social support, unhealthy and high-risk behavior in nursing and college students [23].

Elevated level of stress negatively impacts the physical and psychological well-being of nursing students. If perceived stressors persist, the individual may reach a stage of exhaustion in which the individual looses the ability to resist the stressor [24]. Increased level of stress combined with poor coping mechanisms may lead to poor academic outcome and burn out among nursing students. Aside from the effect of stress on

Students' peculiarities	Last semester GPA					df	pv	Remark	Decision
Gender	1 st class	2 nd class (U. Div.)	2 nd Class (L. Div.)	3 rd class & below			-		
Male	3	5	5	7					Do not
	15.8%	8.2%	15.6%	15.9%	1.917	3	0.59	NS	reject H0
Female	16	56	27	37					
	84.2%	91.8%	84.4%	84.1%					
Students' study habits	1 st class	2 nd class (U. Div.)	2 nd class (L. Div.)	3 rd class & below	Chi-sq.	df	pv	Remark	Decision
Assisted study	12	30	19	21					Do not
-	63.2%	49.2%	59.4%	47.7%	2.143	3	0.54	NS	reject H0
personal study	7	31	13	23					
	36.8%	50.8%	40.6%	52.3%					
Stress levels	1 st class	2 nd class (U. Div.)	2 nd class (L. Div.)	3 rd class & below	Chi-sq.	df	pv	Remark	Decision
Mild stress	8	21	6	16					Do not
	42.1%	34.4%	18.8%	36.4%	3.945	3	0.27	NS	reject H0
Moderate/Severe stress	11	40	26	28					-
	57.9%	65.6%	81.2%	63.6%					

Table 12. Reports of hypotheses tested

Key: df = degree of freedom, pv = p-value, H0 = Null hypothesis, U. Div. = Upper division, L. Div = Lower division

Students' peculiarities		Last session CGPA			Chi-sq.	df	pv	Remark	Decision
Gender	1 st class	2 nd class (U Div.)	2 nd class (L Div.)	3 rd class & below			-		
Male	3	6	5	6					
	20.0%	9.5%	14.3%	14.0%	1.421	3	0.70	NS	Do not
Female	12	57	30	37					reject H0
	80.0%	90.5%	85.7%	86.0%					
Students' study habits	1 st class	2 nd class (U Div.)	2 nd class (L Div.)	3 rd class & below	Chi-sq.	df	pv	Remark	Decision
Assisted study	10	31	19	22					
-	66.7%	49.2%	54.3%	51.2%	1.557	3	0.67	NS	Do not
personal study	5	32	16	21					reject H0
	33.3%	50.8%	45.7%	48.8%					•
Stress levels	1 st class	2 nd class (U Div.)	2 nd class (L Div.)	3 rd class & beolw	Chi-sq.	df	pv	Remark	Decision
Mild stress (2-5)	4	26	6	15					Do not
	26.7%	41.3%	17.1%	34.9%	6.294	3	0.10	NS	reject H0
Moderate/Severe stress (6-9)	11	37	29	28					-
	73.3%	58.7%	82.9%	65.1%					

Table 13. Reports of hypotheses tested

Key: df = degree of freedom, pv = p-value, H0 = Null hypothesis, U. Div. = Upper division, L. Div = Lower division

students' academic performance, stress is believed to be a major contributor to coronary heart disease, cancer, lung problems, accidental injuries, cirrhosis of the liver and suicide; six of the leading causes of death in the United States and beyond [25]. Although, moderate levels of stress may be motivating since it makes the individual work hard. It is the extreme or severe for ms of stress that is bad and efforts should be made to manage it. High stress levels did not only interfere with the students' performance, but also exposed many of them to mental and physical health risks as most of the students undergo excessive assignments, time pressure, personal problems and financial difficulties [26,27].

In addition, results from this study also indicate that almost a proportionate number of the students (41.4% and 42%), utilize group discussion and personal study respectively as their studying style, while an appreciable number engage in role-play as their study method. A good number of them (38.5%), believe that 3 hours is the maximum number of hours of effective study that should be utilized during personal study. Also, 32.9% of the students believe that students should study all through the semester. Good study habits identified include: being organized, keeping good notes and studying textbooks, listening in class, and working every day. Bad study habits identified include: skipping class, not doing class work, watching TV or playing video games instead of studying, and losing one's work [28]. Findings from the study indicate that a good proportion of the students have good studying habits as they read privately and engage in group discussions. This finding is also consistent with a previous finding, who pointed out that good studying habit involves a systematic acquisition of knowledge and an understanding of facts and principles that calls for retention and application [29]. With the aforementioned, study habit can be said to be a programme of subject matter mastery involving hard work. However, it was discovered that some students do not know how to study, probably because they are not aware of what techniques to apply in the study situation or they study at odd times and in odd places. Hills and Ballow had an understanding of this deficiency in students' approach to study habit and developed a comprehensive study skill manual for college students [30].

Many available definitions of academic performance rely on quantitative data and calculations like that of test scores, exam scores and grades. So, there is no commonly agreed definition of academic performance that is applicable to the education field [31]. However, a researcher attempted to define academic performance without relying on quantitative data and defined academic performance as the level of performance in school subject as exhibited by an individual [32]. Several studies within Nigeria have shown that learners are gualitatively different in their ability levels and in learning problems [33]. Some studies have also shown that the method of instruction can influence the performance of low achieving students [34]. This may be one of the reasons why a handful of the students end up with pass grades which was evident in this study as majority of the students claimed to have had pass grade in the last semester before the study. This reflects a need for instructors and educators of these students to reanalyze their methods of instruction and adjust it to better suit the students.

Cumulative grade point average is a justifiable measure of students' academic success as compared to a predetermined standard scale. Academic performance which is measured by the examination results is one of the major goals of an institution. Since it has been agreed that cumulative grade point average is a very good measure of students' academic success or failure, it is important that students take note of this, and leverage on existing teaching and learning methods, in a bid to achieve very good grades while in school [13].

Generally, coping has been described as efforts made by individuals to comply with the environment and prevent negative consequences of stressful situations [35]. Among the students, 22% make use of stimulants like caffeinated tea bags and caffeinated coffee while reading. However, students who do not use stimulants adopt other coping measures such as chewing gum, walking around, putting leg in water, staying in a cool environment, among many others, some of which has been identified as good coping mechanisms. It was discovered that students allot most of their time to academic tasks in an attempt to overcome stress [36]. In stress coping strategies, the more appropriate method used in coping with stress, the less he/she would be damaged [37].

Nurse educators are ethically responsible for supporting students in managing their stressors and identifying appropriate coping mechanisms. If students are not taught to manage stress in healthy ways, their growth in self-awareness and caring capabilities may be impaired which could adversely affect the care they provide for their patients [38]. Identified stressful interventions relaxation, include: imagery, behaviour modification, exercise, mindfulness, meditation, mindfulness-based stress reduction (MBSR), deep breathing, peer monitoring and yoga, among others [39]. Many studies also found a positive relationship between guided imagery and relaxation, a decrease in stress and anxiety levels, and improvement in both the student perceived health and well-being [40]. This finding support findings from this study, which also identified many of these positive stress coping mechanisms as utilized by the students. Also, cognitive-behavioral coping strategies have been identified to be the most effective methods that can be used to reduce stress in nursing students [41].

This study has also been able to highlight some of the cognitive behavioral coping strategies utilized by the students, such as exercise and relaxation. However, some of the students still utilize stimulants as methods of relaxation, which is a negative coping strategy that could affect the students adversely. This is similar to the findings of a previous study which stated that while majority of the students irrespective of gender were using positive coping strategies such as praying, taking action to negate stressors, seeing something good in what was happening, learning from experience, getting emotional support from friends and family, learning to live with the stress situation and accepting it, it however came to light that minority of the students used tobacco/alcohol/drug to address stress situation [42]. With this finding, it is therefore essential that nursing students are provided with the tools to recognize and handle their stressors early in their education, as this will have a long lasting effect throughout their career [39].

5. CONCLUSION

Nursing students, who are the future nurses, face considerable levels of physical, psychological and mental stress during the course of their training, which in turn can affect their academic and professional development as nurses in the near future. Developing a maladaptive coping mechanism affects nurses; as such nurses would not be able to comprehensively and adequately render quality care to their patients. This, in turn, leads to poorer outcomes for patients and the health care system at large. It is therefore important to identify stressors among such students, and provide appropriate coping mechanisms that can help the students adjust to stressful situations, and in turn, emerge as excellent health care professionals.

6. LIMITATION

This study was limited by: Inadequate funding and literature, limited time and sample size.

ETHICAL APPROVAL

An introductory letter was collected from the Department of Nursing, University of Ibadan. Same was attached with the research proposal and submitted to the heads of department of the institutions. Written permission was given to the researcher. The respondents were assured that participation will not affect their academic progress. Informed consent was sought from all the respondents and they were allowed to withdraw at any point if they wish without any consequence. Confidentiality of the information sought and provided was ensured. Only students who give consent were involved in the study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

- Zaidi RH, Casanova NF, Haydar B, Voepel-Lewis T, Wan JH. Urethrocutaneous fistula following hypospadias repair: Regional anesthesia and other factors. Pediatric Anesthesia. 2015;25(11): 1144-1150.
- Lewis SL, Shaw CA. Stress and stress management, In S. Lewis, M. Heitkemper, S. Dirksen, P.O'Brien, & L.Bucher (Eds.). Medical Surgical Nursing: Assessment and Management of clinical problems (7th ed.). St. Louis, MO:Mosby. 2007;560-606.
- 3. American College Health Association. American college health assessment spring reference group data report (abridged). Journal of American College Health. 2009;57:477-488.
- Araas T. Associations of mindfulness, perceived stress and health behaviors in college freshmen. Dissertation Abstracts International: Section A. Humanities and Social Sciences. 2008;69(2):521.
- 5. Stecker T. Well-being in an academic environment Med Educ. 2004;38:465-78.
- 6. Samson-Akpan PE, Ella RE, Akpabiol I. Influence of study habits on undergraduate

nursing students' academic performance in University of Calabar, Nigeria. American Research Journal of Nursing. 2017;1(3). [ISSN 2379-2922]

- 7. Spielberger EC. CD. Reheiser Occupational stress and health in new perspective in occupational health A.G psychology antonious &Cooper C.L.eds Edward Elgar, Cheltanhan, Great Britain. 2015;451-454.
- Wolf L, Stidham AW, Ross R. Predictors of stress and coping strategies of US accelerated Vs generic baccalaureate nursing students: An embedded mixed method study. Nurse Education Today. 2015;35:201-205.
- Oluwatimilehin JT, Owoleye JW. Study habits and academic achievements in core subjects among Junior Secondary Schools' Students in Ondo State, Nigeria. Bulgarian Journal of Science and Education Policy (BJSEP) 6(1) Tai Solarin University of Education, Nigeria; 2012.
- Singh A, Chopra M, Adiba S, Mithra P, Bhardway A, Arya R, et al. A descriptive study of perceived stress among the North Indian nursing undergraduate students. Iranian Journal of Nursing and Midwifery Research. 2013;18(4):340-342.
- Dimkpa DI, Inegbu, Boloubomere. Student Nurses' perception of poor academic performance in Bayelsa State, Nigeria. Global Journal of Human Social Science Linguistics and Education. 2013;13(14).
- 12. Harford Community College. President's report, 2015. Creating impact. 2015;20.
- Abasimi E, Atindanbila S, Mahamah MM, Gaix. The experience of stress among nursing students in nursing training colleges in Tamale, Ghana. International Journal of Psychology and Behavioural Sciences; 2013.
- 14. Lokesh K. Methodology of educational research. Vikas Publishing House; 2009.
- Bashir I, Mattoo NH. A study on study habits and academic performance of adolescents (14-19) years. International Journal of Social Science Tomorrow. 2012;1(5).
- 16. Roberts HC, Denison HJ, Martin HJ, Patel HP, Syddall H, Cooper C, Sayer AA. A review of the measurement of grip strength in clinical and epidemiological studies: towards a standardised approach. Age and Ageing. 2011;40(4):423-429.
- 17. Robotham D. Stress among higher education students: Towards a research

agenda. Higher Education. 2008;56(6): 735-746.

- Mori S. Addressing the mental health concerns of international students. Journal of Counseling and Development. 2000;78: 137-144.
- Kumar S, Bhukar JP. Stress level and coping strategies of college students. Journal of Physical Education and Sport Management. 2013;4(1):5-11.
- Shaikh BT, Kahloon A, Kazmi M, Khalid H, Nawaz K, Khan N, Khan S. Students, stress and coping strategies: a case of Pakistani medical school. Education for Health-Abingdon-Carfax Publishing Limited. 2004;17:346-353.
- Shaban IA, Khater WA, Akhu-Zaheya LM. Undergraduate nursing students' stress sources and coping behaviours during their initial period of clinical training: A Jordanian perspective. Nurse Education in Practice. 2012;12:204-209.
- 22. Al-Kandari F, Vidal VL. Correlation of the health-promoting lifestyle, enrollment level, and academic performance of College of Nursing students in Kuwait. Nursing & Health Sciences. 2007;9(2):112-119.
- 23. Dixon SK, Robinson S, Griffiths P. Nursing students' understanding and enactment of resilience in nursing education, An Integrative Review; 2008.
- Marie E. Schultz. Factors related to stress in nursing students. HIM 1990-2015. 2011;1183. Available:https://stars.library.ucf.edu/honor stheses1990-2015/1183

[Accessed January 10, 2019]

- 25. Andrews GJ, Brodie DA, Andrews JP, Hillan E, Thomas BG, Wonga J, et al. Professional roles and communications in clinical placements: A qualitative study of nursing students' perceptions and some models for practice. International Journal of Nursing Studies. 2006;43:861-874.
- Ostwald SB, Riddock CC. What to do about being overwhelmed: Graduate students, stress and university services. College Student Affairs Journal. 2007; 27(1):24-44.
- Ganesan Y, Talwar P, Norsiah Fauzan, Oon YB. A study on stress level and coping strategies among undergraduate students. Journal of Cognitive Sciences and Human Development. 2018; 3(2).
- 28. Adeleye. Improving the quality of nursing documentation: An action research project. Research Gate; 2010.

DOI: 10.4102/curationis.v37i2.1251

- 29. Mace N. Strategies to deliver dementia training and education in the acute hospital setting; 2012. Available:https://doi.org/10.1177/17449871 12446242
- 30. Hills KS, Ballow. Improving quality and patient safety by retaining nursing expertise. Online Journal of Issues in Nursing. 2010;15(3):1.
- Ferreira JDS, Ribeiro KV, Caramuru PS, Hanzelmann RDS, Velasco AR, Passos JP. Stress and coping strategies in workers of nursing of a family health unit. Revista de Pesquisa: Cuidado é Fundamental Online. 2017;9(3):818-823.
- 32. Iroegbu-Chikezie O. Cement price soars amid subsidy removal. Nation; 2012.
- Ehindero SA. Types and prevalence of peer victimization among secondary school students in Osun State, Nigeria. International Journal of Cross-Disciplinary Subjects in Education (IJCDSE). 2010;1:53-60.
- Kempa A, Krzyzanowska-Świniarska B, Miazgowski T, Pilarska K. Not insulin but insulin sensivity, leptin, and cortisol are major factors regulating serum acylated ghrelin level in healthy women. Journal of Endocrinological Investigation. 2007:30(8):659-665.
- 35. Mohsen S, Yazdan F, Sara M, Saeid. A comparative study of continuous nursing education in Iran and America Research gate; 2010.

- 36. Tayebah M, Fatimah O, Forough R. Nursing students' time management, Reducing stress and gaining satisfaction: a grounded theory study. Nursing and health sciences (Research gate). 2012;46-51. DOI: 10.1111/j.1442-2018.2011.00661.x
- Akochekan, Rohafza, Hasarzadeh, Mohammed. Nursing education perspectives. The Research Journal of the National League for Nursing. 2008; 40(5).
- Clark CS, Pelicci G. An integral nursing education: A stress management and life balance course. International Journal for Human Caring. 2011;15(1):3-22.
- Jennifer S. Bauer. The use of stress reduction techniques in Nursing Education. Evidenced-Based Practice Project Reports. College of Nursing and Health Professionals paper. 2014;53.
- 40. Hobart HO. The stress sources of nursing students. Educational Sciences: Theory & Practice. 2008;13(2):760-766.
- 41. Kaviani H, Khaghanizade M. The relationship between burnout and mental health among nurses. Tehran University Medical Journal TUMS Publications. 2007;65(6):65-75.
- 42. Kwaah C, Esilfie G. Turkish Online Journal Of Distance Education-Tojde July 2017. Stress and coping strategies among distance education students at the University Of Cape Coast, Ghana. 2017;18(3):Article 8. [ISSN 1302-6488]

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