



**Full Length Research Article**

**STRESS REPOSES AND ADAPTATION AMONG UNDERGRADUATE STUDENTS OF AHMADU BELLO UNIVERSITY SAMARU, ZARIA**

**\*Auwalu Muhammed and Abubakar Ahmad Rufai**

Department of Nursing Science, U.D.U. Sokoto, Nigeria

**ARTICLE INFO**

**Article History:**

Received 17<sup>th</sup> November, 2014  
Received in revised form  
20<sup>th</sup> December, 2014  
Accepted 26<sup>th</sup> January, 2015  
Published online 27<sup>th</sup> February, 2015

**Key words:**

Stress responses,  
Adaptation,  
Undergraduate students.

**ABSTRACT**

Undergraduate students are prone to stress due to traditional character of university life. High levels of stress are believed to affect students' health and academic function. However, effective coping strategies may assist the return to a balance state, reducing the negative effects of stress. The aim of this study was to determine the level of stress, source of stress and coping strategies adopted by the students. It was a descriptive cross-sectional study in which 400 stress survey questionnaires were distributed to the students of selected faculties. The 386 completed questionnaires were collected and data analyzed using descriptive and inferential statistics. The findings revealed that undergraduate students reported high level of stress related to academic pressure and financial demands. Most students reported academic, environmental and intrapersonal factors as their sources of stress. The coping strategies used by the students were self-reliance, seeking spiritual support and investing in close friends. The researchers recommended proper orientation, counseling services and financial support to the students.

Copyright © 2015 Auwalu Muhammed and Abubakar Ahmad Rufai. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**INTRODUCTION**

Stress has been identified as a 21<sup>st</sup> century disease and has been seen as a complex and dynamic matter between individuals and their environments (Evans and Kelly, 2004). During their university years, students experience constant challenges and demands for adjustment and change. Students must take responsibilities, have to get acceptance from their peers and begins more friendly relationships. They have difficulty in coping with the rigorous academic demands. Students' stressors also include changes in living condition like overcrowded hostels, the demands of the university environment and the change in social surroundings (Toray, 2006). In order to cope with all these demands such as pressures from the urge to achieve specific goals like a desire to become a graduate nurse, a doctor, an artist, etc, urge student to strive hard by reading and concentrating on his studies, praying etc, to achieve the goal. Conflict may result from simultaneous occurrence of two or more incompatible needs such as when financial demands superimpose academic demand. Consequently, frustration may result when all the strivings (efforts) of the student to meet his desired goal are

thwarted by obstacles like frequent resist, repeats, carry-overs and the worst if the student is withdrawn. Beck and Srivasta (2001) performed a study to investigate the perception level and sources of stress across academic years among 94 student nurses. Psychiatric symptoms were more prevalent in those students than in general population. Nursing students had to devote long hours to study, were given multiple assignments, and lacked free time, timely feedback and faculty response to students' needs. In another study by Stephanie (2010) to examine stress and coping among students in Atlanta, high stress levels were reported by students. However, self-blame, self-distraction and emotional support were used by the students to cope with stress.

Judith (2008) conducted a research to identify sources and level of stress among UCLA students. Academic performance was the highest sources of anticipated or experienced stress at all academic levels regardless of gender, race, ethnicity or educational level. Stress level associated with concerns about future and finance was ranked second and third respectively. Finances were more likely to be highly stressful for students from some ethnic/racial background, than for the others. Among undergraduate students, more than 25% of African-American, Chicano and Latino indicated that "financial concerns" were "extremely stressful". In Iran, Seyedfatemi, et al. (2007) assessed common stressors and coping strategies

**\*Corresponding author: Auwalu Muhammed**  
Department of Nursing Science, U.D.U. Sokoto, Nigeria

among nursing students. The stressors identified were interpersonal and environmental in nature. While commonly used coping strategies were in order: going along with one's own decision, apologizing and keeping friendship. In Nigerian context, students have high levels of stress with the most common stressors including excessive school work, financial problems, inadequate recreational facilities and overcrowded accommodation. A study to identify stressors and counseling need of undergraduate nursing students in Ibadan indicated a need for counseling and other services for students (Omigbodun *et al.*, 2004). The literature reviewed showed that studies were conducted on the stress and coping among undergraduate students, but in the northern part of Nigeria little is documented about the level of stress among the undergraduate students and the coping strategies adopted by these students, hence the need for this study. Therefore, this study intended to determine stress level, sources of stress and coping strategies among students. The information about student's stress and the methods students use to deal with it can have important implication for higher education administrators and the need to design social support measures by nurses and other health workers for students.

## MATERIALS AND METHODS

**Study design:** A descriptive cross-sectional research design was adopted for the study. The design was chosen to gather and document information on the stress responses and adaptation among the undergraduate students in Samaru, Zaria.

**Population:** The target population constitutes all the female and male undergraduate students of ABU, Samaru campus. This constitutes 22,622 undergraduate students.

**Sample and Sampling technique:** The formula by Yamane (1969) was used to compute the sample size:

$$n = \frac{N}{1 + N(e)^2}, \text{ where}$$

$$n = \text{sample size} = (?),$$

$$N = \text{target population} = (22,622),$$

$$e = \text{level of precession at } 5\% = 0.05. \text{ Substituting,}$$

$$n = \frac{22,622}{1 + 22,622(0.05)^2} = \frac{22,622}{1+56.555} = 393$$

However, because of confounding variables like missing questionnaire that might occur, 400 participants were recruited for the study. A Multistage, cluster sampling technique was used to recruit participants. In the first stage Samaru campus was divided into three complexes (Science, Medical and Art). In the second cluster, three faculties were selected at random from each complex. Then proportional allocation was used to select participant from the selected faculties. Finally, available and willing respondents were given the questionnaire from each of the selected faculties base on the proportionate allocation.

**Method of data collection:** The stress questionnaire by Sayedfatemi, *et al.* (2007) was adapted. It is structured in sections. Section A focused on socio-demographic profile of the respondents. Section B focused on perceived levels of stress. While Section C focused on sources of stress among students and D focus on coping strategies. A Cronbach alpha

reliability co-efficient of  $\alpha = 0.73$  was established by the lead researcher. The researcher went to each faculty selected and their department to administer questionnaire available to the respondents and the researcher retrieved the questionnaires that were filled.

**Research Ethics:** Approval was obtained from the Dean of students' affairs, A.B.U. Zaria. Introduction letter was also obtained from the Department of Nursing Sciences of the Ahmadu Bello University, Zaria. The participants were allowed to participate on their own volition- their consent was obtained. Confidentiality and anonymity of the information collected was assured.

**Limitation of the study:** The small sample size will no doubt affect the generalization of the study. The respondents may answer the questionnaire in their socially desirable manner- this may affect findings of the study.

**Data analysis:** The data was analyzed using both descriptive and inferential statistics. The data was presented in frequency distribution table. Statistical package for social sciences (SPSS) version 20.0 was used to analyze the pre-coded data on an item by item basis.

## RESULTS

Result in Table 1 shows that majority of the respondents (46%) were between the ages of 25-31 years, followed by 18-24 years (39%). Most respondents were male (63%) while females were 37%.

**Table 1. Distribution of undergraduate by socio-demographic profile**

i Age (years)	Frequency	Percentage (%)
18-24	152	39
25-31	176	46
32-38	26	7
39-44	32	8
Total	386	100
ii: Gender		
Male	242	63
Female	144	37
Total	386	100
iii: Faculty		
Education	154	40
Agriculture	70	18
Medicine	162	42
Total	386	100
iv: Levels of Study		
100L	58	15
200L	84	22
300L	90	23
400L	120	31
500L/600L	34	9
Total	386	100

About 42% of respondents were in faculty of medicine, while education and agriculture constituted 40% and 18% respectively. In the area of level of study, most of the respondent were in 400 level (31%), followed by 300L (23%). Result on student stress level indicated that students gave high rating to the academic pressure from class workload followed by financial difficulties with mean (average) score of 2.8 and 2.5 respectively. However, the overall stress level was statistically significantly lower by 3.7 (at 95% CI) compare to

the average (test) score of 15 [ $t_{(385)} = -1.857, p < 0.001$ ]. Detailed is shown in Table 2a and 2b. Furthermore, results in Table 3 show that, the major interpersonal sources of stress among students were “change in social activities” (58%), and misunderstanding with friends, roommates or faculty staff” (58%). Most students agreed that their intrapersonal sources of stress were “new responsibility” (64%), “starting the study” (61%), “change in sleeping habit (62%) and “financial demands” (76%) while the most common academic sources of stress were “increased class workload” (91%), “inadequate time to read” (80%), complexity of material to learn” (68%) and “not understanding lectures” (53%). Result further shows that majority of the respondents agreed that their environmental sources of stress were in order, “overcrowded lecture halls/laboratories” (80%) “Overcrowded accommodation” (76%), “unfamiliar situation” (60%) and “waiting in long lines” (58%).

**Table 2a. Undergraduates’ overall stress level**

Stressors	Mean stress level (x)
Pressure (class workload, exams)	2.8
Frustration (missing result, carry over)	1.5
Change (new friends, environment)	1.5
Conflict (with friends, roommates)	1.3
Self-imposed (responsibility)	1.7
Finance (financial difficulties)	2.5

**Table 2b. Undergraduates’ overall stress level**

One-Sample Statistic (N = 386)			One-Sample Test (Test Value = 15; 95% CI)		
Variable	Mean	t	df	Sig. (2-tailed)	Mean Difference
Overall Stress level	11.300	-1.857	385	.000	-3.700

**Table 3. Distribution of students by sources of stress**

Sources of stress	Yes		No		Total	
	Freq	%	Freq	%	Freq	%
Interpersonal						
a. Finding new friends	170	44	216	56	386	100
b. Changes in social activities	224	58	162	42	386	100
c. Misunderstanding ( with friends)	224	58	162	42	386	100
d. working with people I don’t know	186	48	200	52	386	100
Intrapersonal						
a. New responsibility	240	64	140	36	386	100
b. Starting the study	234	61	154	39	386	100
c. Change in eating habit	176	46	210	54	386	100
d. Change in sleeping habit	240	62	146	38	386	100
e. Financial demand	294	76	92	24	380	100
Academic sources						
a. Increase class workload	350	91	36	9	386	100
b. Inadequate time to read	310	80	76	20	386	100
c. Not understanding lectures	206	53	180	47	386	100
d. Grade competition	182	47	204	53	386	100
e. complexity of material to be learn	264	68	122	42	386	100
Environmental						
a. Unfamiliar situation	230	60	156	40	386	100
b. Waiting in a long line	222	58	164	42	386	100
c. Overcrowded accommodation	294	76	92	34	386	100
d. Overcrowded lecture halls/labs	310	80	76	20	386	100

The coping strategies in Table 4 suggested that, majority of the respondents reported “playing games” (71%), “joking and keeping sense of humour” (63%) to seek diversion from stressors while majority of the respondents have reported yes “choosing comfortable position” (82%), and “closing eyes”

(57%) to relax when in stressful situation. Most respondents were adopting self-reliance through “thinking of good things” (91%), “working harder” (89%) and “making my own decision” (85%) as means of coping with stressful events. In the area of avoiding, almost all students reported that “drinking beer” (84%), “smoking” (82%), “staying away from stressful events” (82%) and “using prescribed drugs” were not their means of coping. In addition, results indicated that majority of the students reported seeking spiritual support through “praying” (92%) “going to mosque/church” (88%) and “talking to minister/priest/imam” (66%). In the area of investing in close friends, majority of the respondents reported “being close with friends” (76%) and “talking to the friend about the stress” (75%) to cope with stressful events.

## RESULTS AND DISCUSSION

Findings indicated that most of the respondents were male, between the ages of 25-31 years. The age, gender and previous experience were said to have influence on individual response to stress by WHO/EHA. Majority of the respondents were fourth year students. Findings regarding students’ level of stress indicated that the majority of the respondents gave high rating to academic pressure from class workload followed by financial difficulties. However, the students’ overall stress level was statistically low. Findings were in agreement with those reported by Judith (2008) who found in his study that academics and finances were more likely to be “extremely stressful” than other stressors. In addition, Omiogbodun *et al.* (2004) also found that Nigerian students have high level of stress related to excessive school work and financial problems. The sources of stress found in this study were “change in social activities”, and “misunderstanding with friends, roommates or faculty staff” as interpersonal sources of stress;

“financial demands”, “new responsibility”, “change in sleeping habit” and starting the study as intrapersonal sources of stress. The most frequent academic sources of stress were “increased class workload”, “inadequate time to read”, “complexity of material to be learnt” and not understanding

**Table 4. Distribution of students by coping strategies**

Coping strategies	Yes		No		Total	
	Freq	%	Freq	%	Freq	%
Seeking diversion						
a. Listening to music	166	43	220	57	386	100
b. Attending social gathering	130	34	256	66	386	100
c. Playing games	274	71	112	29	386	100
d. Joking and keeping sense of humour	2245	63	142	37	386	100
e. Use of substance	36	9	350	91	386	100
relaxation strategies						
a. Day dreaming	170	44	216	56	386	100
b. Closing eyes	220	57	166	43	386	100
c. Choosing comfortable position	318	82	68	18	386	100
Self-reliance strategies						
a. Making my own decision	328	85	58	15	386	100
b. Thinking of good things	350	91	36	9	386	100
c. Working harder	342	89	44	11	386	100
Avoidance strategies						
a. Smoking	70	18	316	82	386	100
b. Drinking beer	60	66	326	84	386	100
c. Using prescribed drugs	108	28	278	72	386	100
d. Staying away from stressful events	71	18	315	82	386	100
Spiritual support						
a. Praying	356	92	30	8	386	100
b. Talking to minister/priest/Imam	256	66	130	34	386	100
c. Going to mosque/church	340	88	46	12	386	100
Seeking professional support						
a. Getting professional counseling	168	44	218	56	386	100
b. Talking to lecturer about the stress	136	35	250	65	386	100
Investing in close friends,						
a. Being close with friends	294	76	92	24	386	100
b. Talking to the friend about the stress	290	75	96	25	386	100

lectures. Finally, the environmental sources of stress were “overcrowded accommodation”, “unfamiliar situation” and waiting in long lines”. Academic, environmental and intrapersonal sources of stress were more frequently reported than interpersonal sources. In contrast to these findings, Sayedfatemi, *et al.* (2007) in their study revealed that interpersonal and environmental sources were the major sources of stress among students. These findings imply that in addition to the rigorous academic expectations, students faces other demands in adjusting to un-conducive, overcrowded hostels making it difficult to rest their heads. This may affect their sleeping patterns and consequently their health and academic performances. This study found that the most commonly used coping strategies include seeking diversion through “playing games” and “joking and keeping sense of humour”; relaxation strategies through “closing eyes” and “choosing comfortable position”.

The self-reliance strategies, “making my own decision, “thinking of good things”, and “working harder” were also used by majority of the students; Then the spiritual strategies by “praying”, “talking to imam/minister”, “going to mosque/church”; the investing in close friends strategies: “being close with a friend”, “talking to a friend about the stress” were used by most students. Findings were in line with that of Sayedfatemi, *et al.* (2006) that “making my own decision and investing on close friends were among the most commonly used coping strategy by the students. Moreover, the use of diversion through playing games, joking and keeping sense of humour and investing on close friends found on this study are in agreement with the saying of Smith *et al.* (2008) that: “exercise plays a key role in reducing and preventing the effects of stress by strengthening physical health”, “make time for fun by nurturing yourself through keeping your sense of humour”. This help your body to fight

stress in a number of ways and to alter the stressful situation one need to express his feelings instead of bottling them up, “talk to a trusted friends”. In Nigeria, religion is the most striking cultural feature in the country. Thus, praying was emphasized in childrearing; this makes most students to seek spiritual support when in stressful situations. In addition, Nigerians are social and emotional people, so that helping each other and maintaining friendships are important attribute of Nigerian students.

**Conclusion and Recommendations**

Although the students’ overall stress level was low this study shows that ABU undergraduate, Samaru campus experience high level of stress due to academic pressure and financial difficulties. Students were exposed to a variety of academic, environmental and intrapersonal sources of stress. To adjust to these demands, students reported using different coping strategies. These findings indicate the need for stress management programs specific to the needs of undergraduate students. It is recommended that Students’ union should foster social support groups to enable students support one another; there should be timely feedback and faculty responses to students’ need; financial support to students; Nurses and other health care providers in the university should thoroughly evaluate students with stress-related illness, give adequate care, educate on stress management and recommend support groups.

**Acknowledgement**

The researchers thank late Mr Abdul A.J, the former Head of Department of Nursing Sciences, ABU Zaria (May his soul rest in peace) and Mallam Isah Abubakar for guiding and proof-reading this work. There was no conflict of interest noted in this research.

**REFERENCES**

- Beck, D. and Srivastava, R. 2001. Perceived level and sources of stress in baccalaureate nursing students. *Journal of Nurs., Ed.*, vol. 30, no. 3, pp 127-133.
- Evans, W. and Kelly, B. 2004. Pre-registration students stress and coping measures. *Nurs., Ed. Today*, vol. 24, no. 6, pp 473-482.
- Judith, R.K. 2008. Sources and levels of stress among UCLA students. Available from: <http://www.sairo.ucla.edu> (Accessed 6th November, 2010).
- Omigbodun, O., Onibokun, A. C., Yusuf, B. O. and OduKogbe, A. 2004. Stressors and Counselling needs of Undergraduate Nursing Students in Ibadan, Nigeria. *Journal of Nurs., Ed.*, vol. 43, no. 9, pp 412-415.
- Seyedfatemi, N., Maryam, T. and Hamid, H. 2007. Experienced Stressors and coping Strategies among Iranian Students. Available from: <http://www.biomedcentral.com/1472-6955/6/11>(Accessed 4th October, 2010).
- Stephanie, H. 2010. *Stress and coping experience of health profession students*. Atlanta, GA: American Public Health Association (APHA).
- Toray, T. 2006. Coping in women students: The influence of experience. *Journal of College St., Devpt.*, vol. 15, no. 1, pp 26-32.

\*\*\*\*\*