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## **Factors that Influence B.Ed. Students' Level of Stress in Multidimensional Interaction with Their Environment in Kenyan Public Universities**

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### **Abstract:**

*This study was conducted to determine the factors that cause stress among traditional Bachelor of Education degree program students' in Kenyan public universities. A survey of the literature on university students' level of stress reveals that the numerous student's disruptions associated with wilful destruction of property in campus, possibly is an expression of stress, an area not yet addressed by university administrators. In carrying out the study, the study site was at Kenyatta University and the College of Education and External Studies (CEES) (Kikuyu Campus University of Nairobi) among the Bachelor of Education students. The study design was a cross-sectional descriptive study. The study participants were 373 undergraduate (227 males, 146 female) students. Data was collected through the Social Demographic Questionnaire (SDQ) and a validated Daily Stress Inventory (DSI). After gathering relevant data, a descriptive and correlation analysis was conducted to determine the relationship between stress and performance, as well as burnout and performance. The findings of the study revealed that, it was not university life that was the most pertinent source of stress in their lives. Rather, interpersonal, personal competencies, varied stressors and environmental hassles were identified as amongst the highest sources of daily stress for the students.*

### **1. Introduction**

Lazarus and Folkman (1984) defined the concept of stress as the relationship between the person and environment and therefore individuals' perception of an event is a direct result of their cognitive appraisal of the event. Cognitive appraisal is the process used by the individual to evaluate and determine why and to what extent a particular transaction or series of person-environment transactions occur. Albrecht, Carr, Keaton and Kelly (2011) identified two main types of stress, the first one is acute stress which results from unexpected stressors and is short-lived, and the second is chronic stress which results from unresolved issues or conditions, and manifests as a state of ongoing physiological agitation. Albrecht et al (2011) further argue that chronic stress deserves serious attention because if it is left unresolved it can have disastrous consequences on the ultimate survival and performance of an individual.

Studies on stress in college students indicate an upward trend, Sax (1997) found that 9.7% of college freshmen report frequent depression. Students with high stress levels exhibit unhealthier behaviours, this includes poor diet, lack of exercise and sleep patterns. Highly stressed students perceive themselves as less healthy, are prone to less healthy habits and report a lower level of self-esteem (Hudd, Dumlao, Erdman-Sager, Murray, Phan, Soukas, & Yokozuka, 2000). Younger and new students in first year and second year levels of study, experience more perceived stress than the seniors in 3<sup>rd</sup> year and above (Misra & McKean, 2000). This could indicate that students develop more effective coping skills as they proceed through their academic careers. This may have implications for administrators and faculty. If appropriate coping styles are identified, perhaps stress management programs could be implemented with younger students before they experience the damaging effects of perceived stress.

In their study Li and Kam (2002) indicated that the major types of stress for university students were academic hassles, daily hassles, and negative life events. Daily hassles have been defined as frustrating, and distressing demands that differentiate everyday transactions. The more negative daily annoyances that students face, the greater their emotional difficulties. The ten most irritating daily hassles have been listed as too little money, too little time, constant pressure of studying, writing term papers, taking tests, future plans, boring instructors, getting up in the morning, weight, and parking problems around campus (Schafer, 1996).

The hypothesis that everyday minor hassles can predict psychological well-being was supported by results of a study that indicated that time pressure was a significant hassle for the university students group. There was a strong association between daily hassles and

mental health and well-being in all four sample groups. In contrast, life-events were not significantly associated with mental health and well-being. This finding showed that minor stressors are an important influence on mental health and well-being (Chamberlain & Zika, 1990).

In Kenya it has been observed (The Standa Committee Report, 2000) that while in campus, most students socialize within various clusters formed on the basis of ethnic origin, socio-economic status and geographical regions of the students' homes. This has several shortcomings especially denying them the freedom to socialize and learn from each other as well as creating frustration among students as they compare and even ridicule each other on this basis. The facilities in most public universities are inadequate leading to excessive congestion on campuses, in the halls of residence, lecture halls and in most common areas. This may lead to discomforts and stress. On several occasions public universities have witnessed riots and disturbances that have been blamed on issues not related to the facilities directly (The Standa Committee Report, 2000). The wide spread wilful destruction of installations and fittings in campus, the graffiti on various walls all point to a behaviour that does not befit such high status and possibly is an expression of areas not yet addressed by university administrators.

## 2. Objectives

The objective of the study was to determine the factors that cause stress among traditional Bachelor of Education degree program students' in Kenyan public universities.

## 3. Methodology

### 3.1. Study Sites

The study was undertaken in both Kenyatta University (main campus) and the University of Nairobi (College of Education and External Studies (CEES) (Kikuyu Campus) among bachelor of education degree program.

### 3.2. Study Design

This was a cross-sectional descriptive study

### 3.3. Participants

To be participative in the study, the subjects were required to be full-time undergraduate students (had successfully completed the four-year secondary education course, applied and met the Joint Admission Board (JAB) criteria for admission to public universities). Students were selected within three levels of study (i.e. first, second and third years), studying in Kenyatta and Nairobi universities for Bachelors of Education degree that leads to a career as a school teacher. The population shares the following similarities: -

- (i) Age: - Between 18 years to 25 years of age
- (ii) Degree program: - Bachelors of Education (Arts/ECD/Science)
- (iii) The faculties are situated outside the city of Nairobi

The study participants were 373 undergraduate (227 males, 146 female). There were 192 (114 males, 78 female) from Kenyatta University (KU) and 181 (113 males, 68 female) from the University of Nairobi. Students were randomly selected and recruited from class lists prepared by the respective faculties/schools based on the numbers of registered students in each level/year of study.

### 3.4. Data Collection Instruments

The students completed both the Social Demographic Questionnaire (SDQ) and a validated Daily Stress Inventory (DSI). The SDQ was researcher designed and had 14 (fourteen) items that included: - age, gender, level of study, marital status, place of residence, nationality, living arrangements, source of income for education expenses, working status

The validated DSI was developed by Phillip J Brantley in 1989 and was composed of 58 items. The instrument measures stress in everyday life; is a self-report questionnaire composed of 58 items. The items are divided into 5 categories of potential sources of stress: 12 items representing interpersonal (IP) sources of stress, 10 items representing Personal competency (PC) sources of stress, 5 items representing Cognitive (CS) sources of stress, 14 items representing environmental hassles (EH) sources of stress and 17 items representing Varied stressors (VS) sources of stress.

In scoring the validated DSI, three scores were calculated for each student. The event score refers to the frequency of stressful events experienced by the respondent and indirectly reflects the level of the respondent's involvement in the environment. Higher scores represent a greater number of stressful events. The impact score represents a personal appraisal of stressful events and indicates an individual's personal experience of stress. Higher scores represent greater perceived stress. The Impact/Event Ratio (I/E Ratio) represents the average amount of stress associated with weekly events. High scores represent greater perceived stress relative to the frequency of stressors in an individual's environment. Low scores indicate either greater coping, less frequent stressful events, or the perception of fewer stressful events. The I/E Ratio gives the best indication of a participant's functioning in relation to stress and thus was used as the dependant variable in statistical analysis. High score may be indicative of an individual who is vulnerable to stressful events and who is less able to cope with stress than the average individual. The participants spent on average 50 minutes to complete the instruments.

### 3.5. Measures

The social demographic characteristics of the participants in the two study sites were measured and the means compared in table 1. DSI scores by study sites are shown in table 2. Weekly mean scores on DSI variables were measured and presented in table 3. Weekly mean scores on DSI and social demographic characteristics were measured and presented in table 4. All the 5 (five) outcome/predictor sub-variables of DSI were measured and compared with the social demographic characteristics (independent variables) and presented in tables 5 - 9

## 4. Analysis and Results

### 4.1. Social Demographics

The demographic data had eight independent variables: 1) age, 2) gender, 3) level of study, 4) marital status, 5) nationality, 6) living arrangement, 7) source of income for education expenses, 8) working status. The results are based on the questionnaire responses of 373 study participants from two public universities in Nairobi, Kenya (The University of Nairobi, and Kenyatta University). Table 1 indicates the respondents' age ranged from 18 years to 25 years. Majority (70.5%) of the students were between ages 21 and 23 years. Males were 61.2% and females were 38.8%, student's distribution in all the 3 levels of study on average at 33.3% and was statistically significant ( $p$ -value = 0.005). Married/separated respondents were a minority and accounted for 1.6% while 98.4% were single. Majority (99.3%) of the respondents were Kenyans and only 0.3% non- Kenyan. Those living near their parents hence within the parents control were about 24.9% while those living away from their parents' direct control were 75.1%. About 62.4% admitted that they experienced high levels of stress in meeting educational expenses, while 37.6% experienced fairly moderate stress. This distribution was statistically significant with a  $p$ -value of 0.002. Majority of the respondents (97.5 %) were not employed and only 2.5% had part-time / casual employment.

Variables	Total (N=373)		University of Nairobi (N=181)		Kenyatta University (N=192)		$\chi^2$ value	df	p value
	n	%	n	%	n	%			
<b>Age in years</b>									
18-19 years	7	1.9	1	0.6	6	3.2	8.85	6	0.182
20 years	43	11.7	25	14.0	18	9.5			
21 years	86	23.4	44	24.7	42	22.2			
22 years	93	25.3	38	21.3	55	29.1			
23 years	80	21.8	42	23.6	38	20.1			
24 years	37	10.1	16	9.0	21	11.1			
25+ years	21	5.7	12	6.7	9	4.8			
No response			3		3				
<b>Gender</b>									
Male	227	61.2	113	62.4	114	60.0	0.23	1	0.631
Female	144	38.8	68	37.6	76	40.0			
No response					2				
<b>Current level of study</b>									
First year	125	33.5	63	34.8	62	32.3	10.66	2	0.005
Second year	131	35.1	75	41.4	56	29.2			
Third and fourth year	117	31.4	43	23.8	74	38.5			
<b>Marital status</b>									
Single	367	98.4	179	98.9	188	97.9	0.56	1	0.686
Married/de facto/separated	6	1.6	2	1.1	4	2.1			
<b>Citizenship</b>									
Kenyan	372	99.7	181	100	191	99.5	0.95	1	1.000
Non-Kenyan	1	0.3	0	0.0	1	0.5			
<b>Living arrangement</b>									
Parents controlled	93	24.9	40	22.1	53	27.6	1.51	1	0.219
Not parents controlled	280	75.1	141	77.9	139	72.4			
<b>Pressure due to source of educational expenses</b>									
Very high	14	3.8	3	1.7	11	5.7	14.93	3	0.002
High	217	58.6	121	68.0	96	50.0			
Moderately high	32	8.6	15	8.4	17	8.9			
Average	107	28.9	39	21.9	68	35.4			
No response			3						
<b>Employment status</b>									
Employed	8	2.5	1	0.6	7	4.1	4.11	1	0.069
Unemployed	316	97.5	154	99.4	162	95.9			
No response			26		23				

Table 1: Social demographic characteristics of the participants by study sites

#### 4.2. Daily Stress Inventory (DSI) (see Table 2 below)

The DSI was used to measure stress in everyday life; the number of items ranged from 1 to 58, with a mean of 3.08 (SD = 1.46). The distribution of responses was as follows: daily hassles accounted for 88.4% interpersonal stressors, 86.1% personal competency, 75% cognitive stressors, 86.3% environmental hassles and, 74.4% varied stressors. The number of responses to each item can be found in Table 2 below. The DSI measured the following sub-scales, Interpersonal problems (IP), Personal competency (PC), Cognitive stressors (CS), Environmental hassles (EH), varied stressors (VS).

➤ Interpersonal problems (IP): - Majority of the respondents (33.8%) experienced mild levels of interpersonal problems. 4.6% had no problem at all, whereas 28.2% experienced very little levels (normal) of stress in this area. About 31.1% experienced much stress while those suffered very high levels of stress were 2.4%. The distribution had no statistical significance

➤ Personal competency (PC): - Respondents who had no problem in this area in the course of the week were 5.6%, about 27.9% very little levels (normal) of stress and those who experienced mild stress levels were 24.9%. Majority endured high stress levels, and another 5.1% suffered very high levels of stress. The distribution had statistical significance with a p-value of 0.002

➤ Cognitive stressors (CS): - Those who did not experience this type of stress in the week were 8.6%, while 21.4% experienced normal/very little levels of stress. Those who experienced sufficient levels of stress scored as follows: - mild stress – 24.1%, high stress – 39.4% these were the majority and, very high stress – 6.4%. The distribution had statistical significance with a p-value of <0.001

➤ Environmental hassles (EH): - Those who did not experience this type of stress in the week were 8.6%, while 22.3% experienced normal/very little levels of stress. Those who experienced sufficient levels of stress scored as follows: - mild stress – 25.7%, high stress – 38.8% these were the majority and, very high stress – 4.5%. The distribution had statistical significance with a p-value of <0.001

➤ Varied stressors (VS): - Those who did not experience this type of stress in the week were 9.7%, while 22.0% experienced normal/very little levels of stress. Those who experienced sufficient levels of stress scored as follows: - mild stress – 26.5%, high stress – 38.4% these were the majority and, very high stress – 3.5%. The distribution had statistical significance with a p-value of 0.002

DSI	Total (N=373)		University of Nairobi (N=181)		Kenyatta University (N=192)		$\chi^2$ value	df	P value
	n	%	n	%	n	%			
<b>Interpersonal problem score</b>									
0	17	4.6	6	3.3	11	5.7	13.84	7	0.054
1	26	7.0	17	9.4	9	4.7			
2	79	21.2	45	24.9	34	17.7			
3	126	33.8	50	27.6	76	39.6			
4	85	22.8	45	24.9	40	20.8			
5	31	8.3	16	8.8	15	7.8			
6	8	2.1	2	1.1	6	3.1			
7	1	0.3	0	0.0	1	0.5			
<b>Personal competence score</b>									
0	21	5.6	5	2.8	16	8.3	22.43	7	0.002
1	31	8.3	23	12.7	8	4.2			
2	73	19.6	40	22.1	33	17.2			
3	93	24.9	50	27.6	43	22.4			
4	98	26.3	43	23.8	55	28.6			
5	38	10.2	12	6.6	26	13.5			
6	18	4.8	7	3.9	11	5.7			
7	1	0.3	1	0.6	0	0.0			
<b>Cognitive Stressors score</b>									
0	32	8.6	6	3.3	26	13.5	29.54	7	<0.001
1	24	6.4	18	9.9	6	3.1			
2	56	15.0	31	17.1	25	13.0			
3	90	24.1	51	28.2	39	20.3			
4	95	25.5	48	26.5	47	24.5			
5	52	13.9	20	11.0	32	16.7			
6	19	5.1	7	3.9	12	6.3			
7	5	1.3	0	0.0	5	2.6			
<b>Environmental Hassles score</b>									
0	32	8.6	4	2.2	28	14.6	36.70	7	<0.001
1	19	5.1	16	8.8	3	1.6			
2	64	17.2	41	22.7	23	12.0			
3	96	25.7	50	27.6	46	24			
4	99	26.5	45	24.9	54	28.1			
5	46	12.3	20	11.0	26	13.5			

6	15	4.0	4	2.2	11	5.7			
7	2	0.5	1	0.6	1	0.5			
<b>Varied stressors score</b>									
0	36	9.7	10	5.5	26	13.5	22.46	7	0.002
1	22	5.9	16	8.8	6	3.1			
2	60	16.1	33	18.2	27	14.1			
3	99	26.5	53	29.3	46	24.0			
4	89	23.9	44	24.3	45	23.4			
5	54	14.5	24	13.3	30	15.6			
6	12	3.2	1	0.6	11	5.7			
7	1	0.3	0	0.0	1	0.5			

Table 2: Daily Stress Inventory (DSI) scores by study sites

DSI Variables	Total (N= 373)		
	Mean	Standard Deviation	Range
Interpersonal problems (IP)	3.0	+ 1.3	0 - 7
Personal competency (PC)	3.1	+ 1.4	0 - 7
Cognitive stressors (CS)	3.2	+ 1.6	0 - 7
Environmental hassles (EH)	3.1	+ 1.5	0 - 7
Varied stressors (VS)	3.0	+ 1.5	0 - 7

Table 3: Weekly mean scores on Daily Stress Inventory (DSI)

The results indicate that the respondents in both study sites experienced stressful events and directly reflect the level of the respondent’s involvement in the environment. An average score suggests that the respondents experienced several of the common stressful events in various areas of their personal environment.

4.3. Comparison of Means

T-tests and Anova was performed on the data and the results were as follows: -

Study sites						
Variables	N=373	IP scores Mean + SD	PC scores Mean + SD	CS scores Mean + SD	EH scores Mean + SD	VS scores Mean + SD
University of Nairobi	181	2.9 + 1.2	3.1 + 1.4	3.2 + 1.6	3.1 + 1.5	3.0 + 1.5
Kenyatta University	192	3.0 + 1.3	2.9 + 1.3	3.1 + 1.3	3.1 + 1.3	3.0 + 1.3
P value		0.331	0.090	0.363	0.674	0.648
Age in years						
20 and below	50	3.1 + 1.1	3.3 + 1.3	3.0 + 1.5	3.0 + 1.3	2.6 + 1.6
21 years	86	2.9 + 1.1	2.9 + 1.4	3.0 + 1.6	3.0 + 1.4	3.0 + 1.4
22 years	93	3.0 + 1.3	2.9 + 1.4	3.2 + 1.7	3.0 + 1.7	3.2 + 1.6
23 years	80	3.0 + 1.3	3.1 + 1.4	3.3 + 1.5	3.4 + 1.4	3.3 + 1.6
24 and above	58	2.8 + 1.4	3.2 + 1.6	3.2 + 1.6	3.1 + 1.7	2.9 + 1.5
P value		0.662	0.438	0.804	0.440	0.157
Gender						
Female	144	3.1 + 1.2	3.2 + 1.4	3.3 + 1.6	3.2 + 1.4	3.3 + 1.5
Male	227	2.9 + 1.3	2.9 + 1.4	3.1 + 1.6	3.0 + 1.5	2.9 + 1.5
P value		0.061	<b>0.044</b>	0.147	0.476	<b>0.008</b>
Current level of study						
First year	125	3.0 + 1.1	3.2 + 1.3	3.3 + 1.5	3.2 + 1.4	3.0 + 1.5
Second year	131	2.9 + 1.3	3.1 + 1.4	3.1 + 1.4	3.0 + 1.4	3.1 + 1.4
Third year	117	2.9 + 1.4	2.9 + 1.6	3.1 + 1.8	3.1 + 1.7	3.0 + 1.6
P value		0.639	0.166	0.512	0.827	0.732
Living arrangements						
Parents controlled	93	3.0 + 1.3	3.0 + 1.5	3.2 + 1.7	3.2 + 1.6	3.2 + 1.4
Not parents controlled	280	3.0 + 1.2	3.1 + 1.4	3.1 + 1.6	3.1 + 1.5	3.0 + 1.6
P value		0.947	0.921	0.707	0.439	0.157
Pressure due to source of educational expenses						
Very high/High	231	3.0 + 1.3	3.1 + 1.4	3.3 + 1.6	3.2 + 1.5	3.1 + 1.5
Moderately high	32	2.8 + 1.2	3.2 + 1.6	2.9 + 1.5	3.2 + 1.4	3.0 + 1.3
Average	107	2.9 + 1.3	2.8 + 1.4	3.0 + 1.6	2.8 + 1.5	3.0 + 1.6
P value		0.537	0.194	0.304	0.079	0.897

Table 4: Weekly mean scores on Daily Stress Inventory (DSI) by social demographic characteristics

The results of this study revealed that the demographic variables of study site, age, level of study, status, resident status, living arrangement, source of educational income, did not have a significant effect on any of the stress indicators. The female gender had higher mean scores compared to the male gender. Personal competence and varied stressors sources of stress were statistically significant with a p-value of 0.044 and 0.008 respectively

#### 4.4. Tests of Association (Linear Regression Analysis)

The coefficients for each of the variables indicates the amount of change one could expect in the predictor variable given a one-unit change in the value of that variable, when all other variables in the model are held constant

Variables	$\beta$	s.e.( $\beta$ )	t value	p value
<b>Full model</b>				
(Constant)	3.13	0.21	14.94	<0.001
Study site: - University of Nairobi	-0.15	0.14	-1.10	0.270
Age in years: - 20 and below	-0.02	0.24	-0.10	0.920
Age in years: - 21 years	-0.12	0.20	-0.62	0.538
Age in years: - 23 years	0.00	0.20	0.02	0.986
Age in years: - 24 and above	-0.19	0.23	-0.82	0.411
Gender: - Female	0.26	0.15	1.80	<b>0.072*</b>
Level of Study: - Second year	-0.12	0.18	-0.69	0.488
Level of Study: - Third year	-0.07	0.20	-0.37	0.710
Living arrangement: - Parents controlled	0.03	0.16	0.19	0.846
Source of funds: - Moderately high	-0.19	0.25	-0.76	0.447
Source of funds: - Average	-0.23	0.15	-1.52	0.130
<b>Reduced model</b>				
(Constant)	2.85	0.08	34.35	<0.001
Gender: - Female	0.27	0.13	2.03	<b>0.043**</b>
* P<0.1				
** P<0.05				

Table 5: Predictor of Interpersonal problem scores

The female gender was a good predictor of interpersonal stress and had a statistical significance of p=0.043

Variables	$\beta$	s.e.( $\beta$ )	t value	p value
<b>Full model</b>				
(Constant)	3.23	0.24	13.67	<0.001
Study site: - University of Nairobi	-0.34	0.15	-2.23	<b>0.026**</b>
Age in years: - 20 and below	0.19	0.27	0.72	0.473
Age in years: - 21 years	-0.09	0.22	-0.39	0.699
Age in years: - 23 years	0.36	0.23	1.61	0.108
Age in years: - 24 and above	0.50	0.25	1.97	<b>0.049**</b>
Gender: - Female	0.37	0.16	2.26	<b>0.024**</b>
Level of Study: - Second year	-0.17	0.20	-0.86	0.390
Level of Study: - Third year	-0.52	0.22	-2.34	<b>0.020**</b>
Living arrangement: - Parents controlled	-0.05	0.18	-0.30	0.766
Source of funds: - Moderately high	0.06	0.28	0.21	0.831
Source of funds: - Average	-0.32	0.17	-1.84	<b>0.066*</b>
<b>Reduced model</b>				
(Constant)	3.14	0.16	20.03	<0.001
Study site: - University of Nairobi	-0.34	0.15	-2.25	<b>0.025**</b>
Age in years: - 23 years	0.33	0.20	1.68	<b>0.094*</b>
Age in years: - 24 and above	0.48	0.23	2.07	<b>0.039**</b>
Gender: - Female	0.41	0.16	2.56	<b>0.011**</b>
Level of Study: - Third year	-0.42	0.18	-2.37	<b>0.019**</b>
* P<0.1				
** P<0.05				

Table 6: Predictor of Personal competency scores

After adjustments for the other factors, the following variables had significant statistical difference compared to their reference variables; study site (UoN) – mean score 2.8, age in years (23yrs, & 24 years and above) – mean score 3.47, 3.62 respectively, gender (female) – mean score 3.55, and current level of study (1st year) – mean score 2.72; they were therefore good predictors of personal competence source of stress

As seen in Table 4, the results showed that the mean event score for students in ages 23 and 24 was 3.1 (SD = 1.4) and 3.2 (SD = 1.6) respectively. Students in these two age groups had a significantly higher Personal Competence scores event than the other age groups (Age 23year -  $\beta$  (0.33),  $p < 0.094^*$ ), (Age 24year -  $\beta$  (0.48),  $p < 0.039^{**}$ ). Females had a mean PC event score of 3.2 (SD 1.4)

Variables	$\beta$	s.e.( $\beta$ )	t value	p value
<b>Full model</b>				
(Constant)	3.23	0.24	13.67	<b>&lt;0.001</b>
Study site: - University of Nairobi	-0.34	0.15	-2.23	<b>0.026**</b>
Age in years: - 20 and below	0.19	0.27	0.72	0.473
Age in years: - 21 years	-0.09	0.22	-0.39	0.699
Age in years: - 23 years	0.36	0.23	1.61	0.108
Age in years: - 24 and above	0.50	0.25	1.97	<b>0.049**</b>
Gender: - Female	0.37	0.16	2.26	<b>0.024**</b>
Level of Study: - Second year	-0.17	0.20	-0.86	0.390
Level of Study: - Third year	-0.52	0.22	-2.34	<b>0.020**</b>
Living arrangement: - Parents controlled	-0.05	0.18	-0.30	0.766
Source of funds: - Moderately high	0.06	0.28	0.21	0.831
Source of funds: - Average	-0.32	0.17	-1.84	<b>0.066*</b>
* $P < 0.1$				
** $P < 0.05$				

Table 7: Predictor of Cognitive stressors scores

After adjustments for the other factors, there was no significant statistical difference.

Variables	$\beta$	s.e.( $\beta$ )	t value	p value
<b>Full model</b>				
(Constant)	3.20	0.25	12.73	<b>&lt;0.001</b>
Study site: - University of Nairobi	-0.12	0.16	-0.71	0.477
Age in years: - 20 and below	-0.20	0.29	-0.72	0.475
Age in years: - 21 years	0.00	0.23	0.02	0.984
Age in years: - 23 years	0.47	0.24	1.96	<b>0.050*</b>
Age in years: - 24 and above	0.18	0.27	0.68	0.500
Gender: - Female	0.25	0.17	1.43	0.154
Level of Study: - Second year	-0.25	0.21	-1.17	0.242
Level of Study: - Third year	-0.24	0.23	-1.03	0.302
Living arrangement: - Parents controlled	0.21	0.19	1.11	0.268
Source of funds: - Moderately high	-0.02	0.30	-0.06	0.952
Source of funds: - Average	-0.47	0.18	-2.56	<b>0.011**</b>
<b>Reduced model</b>				
(Constant)	3.14	0.10	30.69	<b>&lt;0.001</b>
Age in years - 23 years	0.34	0.19	1.77	<b>0.077*</b>
Source of funds - Average	-0.40	0.17	-2.33	<b>0.021**</b>
* $P < 0.1$				
** $P < 0.05$				

Table 8: Predictor of Environmental hassles scores

After adjustments for the other factors, the following variables had significant statistical difference compared to their reference variables; age in years (23 years) mean score 3.48, Source of educational expenses(average) mean score 2.74; they were therefore found to be good predictors of environmental hassle as a source of stress

Variables	$\beta$	s.e.( $\beta$ )	t value	p value
<b>Full model</b>				
(Constant)	3.20	0.25	12.73	<b>&lt;0.001</b>
Study site: - University of Nairobi	-0.12	0.16	-0.71	0.477
Age in years: - 20 and below	-0.20	0.29	-0.72	0.475
Age in years: - 21 years	0.00	0.23	0.02	0.984
Age in years: - 23 years	0.47	0.24	1.96	<b>0.050*</b>
Age in years: - 24 and above	0.18	0.27	0.68	0.500
Gender: - Female	0.25	0.17	1.43	0.154
Level of Study: - Second year	-0.25	0.21	-1.17	0.242
Level of Study: - Third year	-0.24	0.23	-1.03	0.302
Living arrangement: - Parents controlled	0.21	0.19	1.11	0.268
Source of funds: - Moderately high	-0.02	0.30	-0.06	0.952
Source of funds: - Average	-0.47	0.18	-2.56	<b>0.011**</b>
<b>Reduced model</b>				
(Constant)	3.14	0.10	30.69	<b>&lt;0.001</b>
Age in years – 20 and below	0.34	0.19	1.77	<b>0.077*</b>
Source of funds - Average	-0.40	0.17	-2.33	<b>0.021**</b>
* P<0.1				
** P<0.05				

Table 9: Predictor of Varied stressors scores

After adjustments for the other factors, the following variables had significant statistical difference compared to their reference variables; Age in years (20 and below) – mean score 3.48, and source of educational expenses (Average mean score 2.74); they were therefore found to be good predictors of varied stressors as a source of stress.

## 5. Discussion

The finding of the study indicated that only four independent variables, gender, age, level of study and source of education expenses had a significant effect on reported daily stress scores. The findings indicated that female students had greater frequency stressful event than male students. In other words, they reported a greater level of interpersonal and personal competencies stressful events arising from various areas of involvement with their environment. They also showed that ages 23 years and 24 years and above had greater individual's personal competence experience of stress than the younger students in age 20 years and below and age 21 years. Environmental hassles (such as experienced money problems, experienced unexpected expenses, and your property was damaged' etc.) were identified as amongst the highest sources of daily stress for the 23-year-old as well as those experiencing average levels of pressure due to source of educational expense. Varied stressors were identified as amongst the highest sources of daily stress for the students the very young students within age 20 years and below as compared to the other age categories. For example, issues such as was misunderstood, hurried to meet a deadline, store lacked a desired item, competed with someone, and ran out of food/personal article etc. were cited as sources of varied stress in their daily lives. Third year level of study had higher personal competency stressor scores compared to the other levels of study.

This study examined daily stress experienced in a given week by students pursuing bachelor of education degree program in two public universities. Overall, 82.04% of the identified stress sources could be classified as daily hassles. These stressors do not cause anxiety or tension by themselves. Instead, stress results from the interaction between stressors and the individual's perception and reaction to those stressors (Romano, 1992).

The researcher expected that there would be differences across the participant social demographic characteristics and interpersonal stressors, personal competency, cognitive stressors, environmental stressors and varied stressors and reactions to stressors due to disparate demands, unique stressors, and acquired coping capabilities of the respondents. Gender differences were also anticipated as had been indicated in previous research (Allen & Hiebert, 1991; Davidson-Katz, 1991; Rawson, Bloomer, & Kendall, 1994) in which researchers argued that women not only perceived more stress and anxiety in their environment but they actually experienced more symptoms of depression and anxiety.

## 6. Conclusions

Interestingly, the outcomes of the study indicated that it was not university life that was the most pertinent source of stress in their lives. Rather, interpersonal, personal competencies, varied stressors and environmental hassles were identified as amongst the highest sources of daily stress for the students. These findings suggest that everyday living is in itself a major source of stress for young men and female students.

This study represents a first step in understanding sources of stress for college students. The researcher was able to identify which sources of stress occur in the lives of these students. Additionally, research should expand on these findings by determining the degree of stress resulting from each source. Such research would permit conclusions on which stressors are most detrimental or severe and which stressors have a negligible effect. This information could be useful in designing a stress intervention by suggesting the focus



and content of the workshop. Another important factor to consider when studying stress is to explore which sources of stress are motivating and beneficial, and which sources of stress are detrimental.

In conclusion, the results are suggestive as to the necessary components of a stress management program specific to the needs of college students. Given the detrimental effects of stress on health (Zakowski, Hall, & Baum, 1992) and academic performance (Wright, 1964), college administrators should consider incorporating stress management training in orientation activities.

### 7. Recommendations

At a minimum, the sources of stress identified as the most common could be discussed with incoming freshmen. Furthermore, students should be informed of the campus resources available to help them address these resources. A better approach may be the use of a stress management workshop, specifically geared to the stressors encountered by college students. Certainly, stress in the college setting cannot be eliminated but we can and should do a better job preparing our students to manage it.

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