

Stress and Academic Achievement: Empirical Evidence of Business Students in a Ghanaian Polytechnic

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ABSTRACT

This study assessed stress sources and their effects on academic performance of Business Students in Ho Polytechnic, Ghana. A cross sectional research design was employed in conducting the study. In all, 275 students were sampled through the use of multistage sampling procedure. Burge's (2009) modified five-point Likert stress scale was used to solicit for the requisite data for the study. Descriptive statistics such as mean scores and standard deviations were used to determine the most dominant sources of stress. Non-parametric inferential statistics was used to assess the significance differences in stress level by demographic variables. Finally, Spearman's correlation coefficient was used to determine the effects of stress on students' academic performance.

The study among other things found the most dominant stress for each stressor category examined. However, the two most dominant stress categories are "TECATS" and "TACS". The level of stress was found to be significant for all demographic variables evaluated. However, the causal factors for stress categories have been mixed. Finally, no significant effects were found between stress and academic performance. The implication and recommendations were also advanced in the paper.

Keywords: Stress, Stressors, Academic Achievement, Business Students, Ghana, Polytechnic.

INTRODUCTION

Stress is an unavoidable part of the normal fabrics of human existence. Every individual experiences stress irrespective of age, occupation, social status, race, cultural background, etc. (Oyerinde, 2004). Stress has been recognized as a major challenge to workers' health and the healthiness of their organizations (International Labour Organisation [ILO], 1992, 1986) consequently, the World Health Organization (WHO) became alarmed and cited stress as a global epidemic (WHO, 2002). Accordingly, work related stress has become an important subject for studies in academic circles especially in the field of behavioural science (Agolla and Ongori, 2009; Agolla, 2009; Rees and Redfern, 2000). Specifically, attention was predominantly directed at its factors or causes (Luo *et al.*, 2008; Marshall, 2007; Cedillo and Scarone, 2005; Cooper, 2005; Iavicoli *et al.*, 2004; Brough and Frame, 2004; Houkes *et al.*, 2003; Tepper *et al.*, 2001), its harmful effects on wellbeing (Kivimäki *et al.*, 2002; Ariëns *et al.*, 2001; Hoogendoorn *et al.*, 2000; Houtman and Kornitzer, 1999; Fox *et al.*, 1993; Gauster and Schaubroeck, 1991) and productivity within organizations (Vance *et al.*, 2004; Boyd and Wylie, 1994; Armour *et al.*, 1987; Bowen and Schuster, 1985).

Research on stressors and its impact in academic environment for both students and lecturers has also received considerable attention over the past years (Ahmed *et al.*, 2013; Thawabieh, and Qaisy, 2012; Atindanbila, 2011; Agolla and Ongori, 2009; Chen, 2009; Kelly *et al.*, 2001; Trocquet *et al.*, 2000; Sharpley *et al.*, 1996; Okebukole, and Jegede, 1989). Regarding student stressors and its influencers, Kaplan and Sadock (2000); Linn and Zeppa (1984) suggested that an optimal level can enhance learning ability. However, other researchers also hold contrary view. For example, Saipanish (2003) is of the view that stress can affect learning and memory. Similarly, Niemi & Vainiomäki (1999) suggested stress can cause physical and mental health problems; diminish students' self-confidence (Silver and Glick, 1990) and impact students' academic accomplishment (Saipanish,

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2003). Clearly, the literature documented reveals that the negative effects of stress far outweigh the positive. It is not surprising researchers continue to explore the stress concept in the academia using several independent variables such as bio data characteristics, student groupings or categorization based on courses or programmes, format of entry, level of education, point of study in a semester among others.

Notwithstanding the enormous empirical research and theoretical explanation on the causal factors of stress and its influences on academic achievement among university and college students, most of the stress scales used for measurement was not comprehensive and specifically categorized along explicit factors. Furthermore, in the measurement of stressors, several disjointed scales or dimensions were used. The differences in the measurement tools is likely to pose a serious challenge to the evaluation of the earlier results and most importantly on the comparison of results since the amount and quality of evidence for the various measurement techniques vary widely.

Undeniably, the literature into stressors and its consequential impact on academic achievement indicates that not much scholarly work has been done particularly in Ghana. Majority of the investigations has taken place in United States of America (Moffat *et al.*, 2004; Ratana, 2003; Sanders and Kurt, 2001; Shapiro *et al.*, 2000; Pickard *et al.*, 2000; Niemi and Vainiomaki, 1999). Whilst it provides insight into the subject matter generally, nevertheless; results of these studies might have limited applicability in Ghana due to contextual variability. Additionally, most of the studies are concentrated in the field of medicine (Siraj, 2014; Rafidah, *et al.*, 2009; Prymachuck and Richards 2007; Lo, 2002; Clarke *et al.*, 1992). The question can also be posed as to whether stressors and its impacts on medical students are the same for business students since the requirement for successful completion of these programs vary. It is not clear whether the neglect of the business programs in stress studies is as a result of belief that students opting for a course of study with a vocational elements experience a greater degree of stress due to the dual role of theory and practice that students engage in. A conclusion supported by an earlier study of medical and law students (Clark and Rieker, 1986). However, it is clear that for Polytechnic Education in Ghana, no matter your subject area, the focus of academic work is both theory and practice. This implies business students are also engaged in this dual role. The call for research in this area is therefore appropriate.

Significant of note also in the review of literature is the conclusion that first year students are particularly prone to stress compared to other year groups (D'Zurilla and Sheedy, 1991) due to transitional nature of tertiary life (Pritchard *et al.*, 2004; Huddet *et al.*, 2000; Towbes and Cohen, 1996). However, we argued that the use of a single factor in drawing such a conclusion might be misleading since there are multiplicities of factors present in a student's environment. Ironically, a review of the literature further indicate most of the studies for groups were in isolation before comparison of results done later.

The Present Study

This paper aims to address the lacunas enumerated above by using a comprehensive and broader list of proposed stress factors developed by Burge's (2009) and empirically test them against differences in gender, program, workload(credit hours) , level of education and performance of business students of a Polytechnic. This study is important because it brings to light the extent of stress among students thereby informing more rigorous policy formulation to deal with stressors in Ghanaian higher education system. Most importantly, this study adds a Ghanaian perspective to the stress literature.

LITERATURE REVIEW

Stress and Stressors in a Tertiary Environment

The concept "stress" lacks universally accepted definition necessitating Orlans (1991) to conclude that despite the vast amount of information produced and available, substantial disagreements still persist. Initially, stress was perceived as a pressure from the environment, then as a strain within the person. "The generally accepted definition today is one of interaction between the situation and the individual" (Michie, 2002, p 67). For example, Lazarus (1966) defines stress as a condition, or feeling, experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize. Similarly, Lazarus and Folkman (1984) state that stress is a mental or physical phenomenon formed through one's cognitive appraisal of the stimulation and is a result of one's interaction with the environment. According to Greenberge and Baroon (2000), stress is personal, physiological and emotional reactions against stimulus. Stress is the perception of

discrepancy between environmental demands (stressors) and individual capacities to fulfil these demands (Malach-Pines and Keinan, 2007; Topper, 2007; Vermunt and Steensman, 2005).

The existence of stress according to Chen (2009) depends on the presence of the stressors. Feng (1992) and Volpe (2000) defined stressor as anything that challenges an individual's adaptability or stimulates an individual's body or mentality. Similarly, Basavanthappa (2004) suggests a stressor is an event or any stimulus that cause an individual to experience stress. Two of the most important categories of stressors that have been researched at the tertiary environment are academic and institutional stressors.

Academic stress is a product of a combination of academic related demands that exceed the adaptive resources available to an individual (Kadapatti and Vijayalaxmi, 2012). Bisht (1989) cited in Krishan (2014) defined academic stress as a demand related to academics that tax or exceed the available resources (internal or external) as cognitively appeared by the student involved. According to her, academic stress echoes individual's perception of academic frustration, academic conflict, academic pressure and academic anxiety which are synonymous with the components of academic stress. Academic frustration: is a state caused by harm of some academic goals. Academic conflict: is the result of two or more equal but incompatible response tendencies to academic goals. Academic pressure: occurs when the student is under heavy demands of time and energy to meet academic goals, and Academic anxiety: is an apprehension of harm to some academic goals. Some of these academic stressors include; poor time management (Macan *et al.*, 1990); studying for exams (Baldwin *et al.*, 2009); coursework (Robotham, 2008); setting realistic academic targets (Good and Brophy, 1986); adjustment during the transition period (Baker, 2003); high competitiveness among students and information overload (Sinha *et al.*, 2001); pressure from studies (Dahlin, *et al.*, 2005); requirement to meet assessment deadlines (Misra *et al.*, 2000) college admission procedures (Conner *et al.*, 2010) and course load (Talib and Zai-ur-Rehman, 2012).

Institutional stress on the other hand occurs as a result of problems encountered in the institution's environment (Adesola and Arowolo, 2014). Institutional level stressors examined in the literature include overcrowded lecture halls, inadequate resources to perform academic work (Agolla and Ongori, 2009; Awino and Agolla, 2008; Ongori, 2007). Others include pressure to perform well in the examination, and test and time allocated (Erkutlu and Chafra, 2006; Polychronopoulou and Divaris, 2005; Misra and McKean, 2000).

Demographic Factors and Stress

Findings of empirical studies on the influence of gender on stress remains contradictory. For example, in a study conducted by Misra and Castillo (2004), it was revealed that men and women differ in their perceptions and reactions to stress. Similarly, Jogaratnam and Buchanan (2004) found differences between male and female students to be significant when it came to the time pressure dimension of stress. Sulaiman *et al.* (2009) also found in their study that female students have experienced different stress compared to male students because they tend to be extra emotional and sensitive toward what is happening in their surroundings. Other notable studies that reveal significant difference between male and female on stress include (Mazumdar *et al.*, 2012; Sani *et al.*, 2012; Sharma, *et al.*, 2011). On the other hand, Watson (2002) found no significant difference in the perceived stress between male and female students when the researcher made a comparison of perceived stress levels and coping styles of junior and senior students in nursing and social work programs. Similarly, Bhosale (2014); Omony and Ogunsanmi (2012) found no significant difference between male and female on academic stress. However, the levels of stress have also been found to differ for male and female students. For example, Sulaiman *et al.* (2009) have showed that the rate and types of stress among the female students are more than male due to their emotional and sensitive characters and attitude to their environment. Other notable researchers with this significant conclusion includes; Mazumdar, *et al.* (2012); Kai-Wen (2009); Richlin-Klonsky and Hoe (2003) and Garrett (2001). Several researchers have determined that for most female students, the effect of managing multiple roles and additional stressors was determined largely by the student's perception of the enormity of the task (Giancola *et al.*, 2009; Hammer *et al.*, 1998; Lawson and Fuehrer, 1989).

Another personal characteristic that has attracted empirical investigation in the stress literature is students' program of study. A review of extant literature reveals that the most dominant subject area of study is programs with strong vocational element as in the case of nursing students (Pryjmachuk

and Richards, 2007; Lo, 2002; Clarke *et al.*, 1992; Beck and Srivastava, 1991; Johansson, 1991), hospitality students (Jogarathnam *et al.*, 2004), law students (Clark *et al.*, 1986) and social work students (Dzieglewski *et al.*, 2004; Tobin and Carson, 1994). Health and social care related workers are the largest within this category (Redwood and Pollak, 2007; Radcliffe and Lester, 2003; Daly and Wilcock 2002; Lee and Graham, 2001; Firth, 1986; Linn and Zeppa, 1984). The next important cluster of studies has focused on psychology students (Michie *et al.*, 2001; McCarthy *et al.*, 2001; Gadzella *et al.*, 1998). There is also enough support from the literature showing that a significant number of health care students experience stress (Alzahem *et al.*, 2013; Dahlin *et al.*, 2005; Saipanish, 2003). For example, a study by Behere *et al.* (2011) found a higher level of stress among medical and engineering students. Similar finding was discovered by Yusoff *et al.* (2010) in the study of medical students at Universiti Sains in Malaysia.

Previous studies also seem to suggest an inconsistent outcome regarding the year of education and level of stress among students. Whilst first year students have been found to experience considerable stress than students in other schooling years (Byram and Gilgel, 2008; Dahlin, 2005; Burns, 1991), Alzahem *et al.* (2013) and Saipanish (2003) found out that third year student experience more stress than any other year. However, Bataineh (2013) found that there were no significant differences in academic stress among students with different level of study and specializations in the study of 232 education students at King Saud University College of Education.

Workload which is mostly expressed as time pressure and role conflict has also been found to be related to stress. For instance, in a study of Canadian government employees, Brotheridge (2001) concluded that emotional exhaustion, a type of stress, was significantly related to workload. Moreover, the stress construct itself has been found to be positively related to high levels of workload by many researchers. Tyler and Cushway (1995) established a significant and positive link between workload level and stress levels in nurses. The relationship between stress and workload has also been examined under laboratory studies. Searle *et al.* (2001) replication of their 1999 study investigating Karasek's (1979) Job-Strain Model remains the most notable example. Using a computerized mail sorting task, the level of demand, or workload, was manipulated by increasing or decreasing the rate at which participants were instructed to "sort the mail." Participants were administered a stress measure immediately prior to and after completing the task. Results indicated, as in the 1999 study, that the level of stress for the high workload condition was significantly greater than the level of stress reported in the low workload condition. In the context of educational milieu, a study by Euan and Helen (2009) reveals that students' reported levels of workload were more variable than the measures of stress, suggesting that the relationship between stress and workload is more complex than earlier thought. Their self-reported levels of workload and stress are compared to each other and to the number of hours reported for study. This comparison shows that while in general workload and stress are indeed linked, there is a substantial proportion of the cohort for whom these factors appear to be independent. In particular the link between absolute stress and workload appears weaker, suggesting that the issue may not be the actual level of stress, but rather the students' perceptions of what constitutes a "normal" workload at a university level.

Based on this evidence we hypothesized that:

H₁: there is a significant difference between the stress level of male and female students.

H₂: there is a significant difference between stress level and students program of study.

H₃: there is a significant difference between stress level and student's year of education.

H₄: there is a significant difference between stress level and student workload (credit hours).

Stress and Student Performance/Achievement

Job performance can be viewed as an activity in which an individual is able to accomplish the task assigned to him/her successfully, subject to the normal constraints of reasonable utilization of the available resources (Landsbergis, 2003). Performance within the school system is measured by academic performance, which is a function of students study habit (Abid, 2006). Good (1945) defines academic achievement as knowledge attained or skills developed in the school subjects, usually designed by test scores or by marks assigned by teachers, or by both. Academic performance is therefore an outcome of education. Student academic performance in the tertiary environment is measured using the grade point average in a semester or cumulated grade point average at the end of a year or program (Nakalema and Ssenyonga, 2013). It is the single indicator that embodied all stress

measurement categories and of the quality of time a student spends at school. The demand placed by society on students to do well across different levels of education (AngandHuan, 2006) continues to support the position held in academia and corporate world that school grades remain the best predictors of tertiary education performance and subsequently, an indicator of excellent job performance (Kuncelet *et al.*, 2005; Smits *et al.*, 2002).

Studies over the years have demonstrated that student poor performance and stress are positively related (Sohail, 2013; Taylor and Owusi-Banahana, 2010; Wombie, 2005; Hatcher and Prus, 1991). For example, an earlier work by Astin (1973) confirmed by later studies conducted by Blimling (1989) reveals that a student's living environment impacted on his or her academic performance thus GPA. Further studies reveal that student workers struggle to maintain a good academic performance (Robot ham, 2008; Plant *et al.*, 2005; Krause *et al.*, 2005). Despite the negative results, other findings show contrary conclusions (Siraj, 2014; Habibah *et al.*, 2011; Rafidah *et al.*, 2009; Sanders and Lushington, 2002). For example, a study by Habibah *et al.* (2011) of 376 college students of university of Putra in Malaysia reveals a weak negative relationship between undergraduate stress level and their academic performance. Furthermore, Zajacova *et al.* (2005) found out from a study of 107 students involving immigrant and minority college freshmen at a large urban commuter institution that academic self-efficacy is a more robust and consistent predictor than stress of academic success. Similarly, a study by Sanders and Lushington (2002) on the effect of stress on students' performance in an Australian Dental school found little support for an association between increased stress scores and reduced academic performance among students. Rafidah *et al.* (2009) examine the impact of stress factors on academic performance of Pre-Diploma Science students at the University of Technology MARA (UiTM), Malaysia. None of the stress factors significantly affected the academic performance of students. A study by Siraj (2014) aimed to explore the association between stress levels and the academic performances shows that respondents with a high and severe stress level were observed to have higher cumulative grade point average (CGPA). The medical students were found to be highly resourceful to manage their stress well and thus denying the negative effect of stress towards their academic performance.

Based on the above evidence we hypothesized that:

H₅: there is a significant difference between stress level and academic performance of students.

METHODOLOGY

The work entailed a survey of year 1 to year 3 students of Accountancy (ACT), Banking and Finance (BF), Purchasing and Supply (PS) and Secretaryship and Management Studies (SMS) within the faculty of Business and Management studies of Ho Polytechnic. The researchers employed cross-sectional design for the study. This approach was deemed appropriate because the researchers aimed at intergroup group comparison in a moment in time; thus one semester (Miller, 1998; Wohlwill, 1973).

A total sample of 375 students selected from a population of 4,090 for the study. The sample size was determined using Krejcie and Morgan (1970) computed table based on 95% level of certainty or significance. A multistage sampling technique was used for the study. The first stage involves stratification of the population based on first, programme of study and second, level of students. The aim is to attain a representative sample of each year group and programme area for the study (Saunders *et al.*, 2012). The second stage employs proportionate sampling technique to determine the actual size of sample to be drawn from each group. The third stage involves the use of convenience sampling technique to draw specific student's numbers 126 from 1,397 1st years; 109 from 1,157 2nd years and 140 from 1,542 3rd years for the study using official registered list of students as the sampling frame.

A structured self-administered questionnaire was used to collect primary data for the study. The choice of this method is because of its benefit of allowing each participant to respond to the same set of questions in a predetermined order (Salkind, 2011). The questionnaire was divided into three sections: Section A covers students' profile. Section B covers measurement of individual's perception of stress using Burge's (2009) modified five-point Likert scale ranging from 1= *not at all stressful* to 5= *extremely stressful* with Cronbach Alpha value for all dimension exceeding 0.817. This demonstrated reputable reliability and validity (Cohen *et al.*, 1983; Nunnally, 1978). The questionnaire comprises of 53 items made up of 10 items for academic stressors, 5 items for time/balance stressors, 10 items for intrapersonal/self-stressors, 6 items for relationships

/interpersonal /social stressors, 11 items for teaching quality/relations with teachers/support from teachers stressors and 11 items for environmental /campus /administrative /transition stressors. Student academic performance was measured using their grade point average (GPA). The GPA provided by the students was checked against their GPAs obtained from the academic affairs office after the final semester results were released. The aim is to check against students providing incorrect results. The Polytechnics GPA system is classified into four categories (First Class =4.00-5.00, Second Class Upper=3.00-3.99, Second Class Lower = 2.00-2.99 and Pass = 1.50-1.99). Colleagues of the researchers in the 10 departments facilitated the administration of the questionnaires between August and September 2014.

All questionnaires administered were found to be useful for analysis after editing. The questionnaires were coded and keyed into the SPSS version 22.0 for analysis. Composite scores were computed for all category of stressors to ensure parsimony in terms of number of variables for easy interpretation of results. Frequencies and percentages were used to summarize demographic information of respondents. Descriptive statistics technique; mean and standard deviation was used to determine the most and least important stress factors among the study participants. Mann-Whitney *U* Test was used to explore gender effects on stress. Kruskal Wallis Tests were conducted to assess the relationships between respondents' programs, work load, and year of education on stress. Finally, the relation between level of stress and academic performance is assessed using non-parametric correlation coefficient (Spearman's).

RESULTS

Profile of Respondents

As demonstrated in Table 1, 51.2% of the respondents were female and 59.5% are on Accountancy program. Around 44.0% are doing 15 credit hours for the semester under study followed by 19 credit hours (34.9%). In terms of level of education, 36.3% of the respondents are in 3rd year. 34.1% and 29.6% of the respondents are in 2nd and 1st years respectively. In relation to performance (GPA), 46.4% makes 2nd class lower, followed by 2nd class upper (34.4%) and (3.7%) had 1st class.

Table 1. Demographic Profile of Respondents

| Characteristics | Frequency | Percent |
|------------------------------------|------------------|----------------|
| Gender | | |
| Male | 183 | 48.8 |
| Female | 192 | 51.2 |
| Program | | |
| Accountancy | 223 | 59.5 |
| Purchasing & Supply | 41 | 10.9 |
| Banking & Finance | 36 | 9.6 |
| Secretaryship & Management Studies | 75 | 20.0 |
| Credit Hours | | |
| 15 CRH's | 165 | 44.0 |
| 18 CRH's | 12 | 3.2 |
| 19 CRH's | 131 | 34.9 |
| 20 CRH's | 40 | 10.7 |
| 24 CRH's | 27 | 7.2 |
| Level of Education | | |
| First Year | 111 | 29.6 |
| Second Year | 128 | 34.1 |
| Third Year | 136 | 36.3 |
| GPA | | |
| First Class | 14 | 3.7 |
| Second Class Upper | 129 | 34.4 |
| Second Class Lower | 174 | 46.4 |
| Pass | 58 | 15.5 |

Source: Field Survey, September 2014

Common Stressors in the Tertiary Environment

Table 2 presents the means and the standard deviations for 53 potential sources of stress divided into six (6) categories, which are: 1) Academic Stressors (ACS); 2) Time and Balance Stressors (TBS); 3) Intrapersonal and Self-Stressors (ISS); 4) Relationships, Interpersonal, Social Stressors (RISS); 5) Teaching quality, Relations with teachers, Support from teachers Stressors (TRSS); and 6) Environmental, Campus, Administrative and Transition Stressors (ECATS).

From the table the leading **academic stressor** is "getting good enough grade" ($M=3.29$). Followed by "study for test and exams" ($M=3.23$), "amount of material to study" ($M=3.14$) and "achieving my academic goals" ($M=3.11$). Whilst "understanding academic material" and "contributing to class discussions" are the two least factors with mean score of ($M=2.75$) and ($M=2.29$) respectively. With regards to **time and balance stressors**, the foremost factor is "managing all my different responsibilities" ($M=3.06$) and "being too tired to study properly" ($M=3.06$). The least factor is "inconvenient personal timetabling" ($M=2.73$).

Table2. Dominant stressors among Students Based on Individual Scores

| Factors | Mean | Std. D | Rank |
|--|------|--------|------|
| Academic Stressors (ACS) | | | |
| 1. Getting good enough grade. | 3.29 | 1.201 | 1 |
| 2. Study for test and exams. | 3.23 | 1.045 | 2 |
| 3. Amount of material to study. | 3.14 | 1.273 | 3 |
| 4. Achieving my academic goals. | 3.11 | 1.312 | 4 |
| 5. Handling academic workload. | 3.10 | 1.036 | 5 |
| 6. Meeting deadlines for academic assessment. | 3.01 | 1.278 | 6 |
| 7. Sitting test and exams. | 2.93 | 1.089 | 7 |
| 8. Lack of clarity about assessment task requirements. | 2.77 | 1.160 | 8 |
| 9. Understanding academic material. | 2.75 | 1.077 | 9 |
| 10. Contributing to class discussions. | 2.29 | 1.263 | 10 |
| Time/Balance Stressors (TBS) | | | |
| 1. Managing all my different responsibilities. | 3.06 | 1.186 | 1 |
| 2. Being too tired to study properly. | 3.06 | 1.223 | 2 |
| 3. Finding time for both Polytechnic and leisure activities. | 2.96 | 1.208 | 3 |
| 4. Not being able to manage my time effectively. | 2.78 | 1.270 | 4 |
| 5. Inconvenient personal timetabling. | 2.73 | 1.285 | 5 |
| Intrapersonal/Self Stressors (ISS) | | | |
| 1. Fear of failing. | 3.09 | 1.569 | 1 |
| 2. Dealing with my personal issues. | 2.59 | 1.275 | 2 |
| 3. My study skills. | 2.56 | 1.166 | 3 |
| 4. My procrastination and laziness. | 2.38 | 1.267 | 4 |
| 5. Not being sure whether I'm studying the right degree. | 2.36 | 1.397 | 5 |
| 6. Feeling like I'm not intelligent enough. | 2.24 | 1.284 | 6 |
| 7. Not being able to think clearly. | 2.06 | 1.150 | 7 |
| 8. Feeling like I don't belong at Polytechnic. | 2.04 | 1.373 | 8 |
| 9. My writing skills. | 2.02 | 1.257 | 9 |
| 10. Lack of self-discipline. | 1.98 | 1.245 | 10 |
| Relationships/Interpersonal/Social Stressors (RISS) | | | |
| 1. Competing with other students. | 2.86 | 1.323 | 1 |
| 2. Not having enough support from others. | 2.66 | 1.281 | 2 |
| 3. Getting along with fellow students at Polytechnic. | 2.30 | 1.261 | 3 |
| 4. Ways of maintaining friendships. | 2.19 | 1.154 | 4 |
| 5. Handling my personal relationships. | 2.12 | 1.215 | 5 |
| 6. The way fellow students treat me. | 2.07 | 1.256 | 6 |
| Teaching quality/Relations with teachers/Support from teachers Stressors (TRSS) | | | |
| 1. Delays in marking and feedback. | 3.05 | 1.420 | 1 |
| 2. Accessing learning materials. | 2.73 | 1.303 | 2 |
| 3. Understanding the expectations of teaching staff. | 2.69 | 1.222 | 3 |
| 4. Approaching teaching staff for help. | 2.65 | 1.415 | 4 |
| 5. Lack of relevance of learning tasks to my career. | 2.57 | 1.342 | 5 |

| | | | |
|---|------|-------|----|
| 6. Lack of feedback from teaching staff. | 2.53 | 1.314 | 6 |
| 7. Attitude of teaching staff towards students. | 2.50 | 1.275 | 7 |
| 8. Lack of support from teaching staff. | 2.46 | 1.227 | 8 |
| 9. Disorganization of teaching staff. | 2.38 | 1.320 | 9 |
| 10. The way teaching staff treat me. | 2.13 | 1.184 | 10 |
| 11. Lack of knowledge of teaching staff. | 2.10 | 1.265 | 11 |
| Environmental/Campus/Administrative/Transition Stressors (ECATS) | | | |
| 1. Getting access to computers and the internet. | 3.63 | 1.454 | 1 |
| 2. Lack of campus facilities. | 3.32 | 1.370 | 2 |
| 3. Lack of recreational activities on campus. | 3.29 | 1.409 | 3 |
| 4. Dealing with Polytechnic administration. | 3.28 | 1.387 | 4 |
| 5. Lack of helpfulness of administrative staff. | 3.10 | 1.388 | 5 |
| 6. Lack of communication from the Polytechnic. | 3.09 | 1.371 | 6 |
| 7. Quality of Polytechnic buildings and equipment. | 3.03 | 1.358 | 7 |
| 8. Having to hang around in-between classes. | 2.74 | 1.387 | 8 |
| 9. Reputation of the Polytechnic. | 2.69 | 1.293 | 9 |
| 10. Transitioning to Polytechnic. | 2.62 | 1.290 | 10 |
| 11. Adjusting to the campus environment. | 2.43 | 1.306 | 11 |

Notes: $n = 375$; scale: 1= Not at all stressful to 5= extremely stressful

Source: Field Survey, September 2014

The three most important **intrapersonal and self-stressors** were "fear of failing" ($M=3.09$), "dealing with my personal issues" ($M=2.59$) and "my study skills" ($M=2.56$). However, "feeling like I don't belong at the Polytechnic" ($M=2.04$), "my writing skills" ($M=2.02$) and "lack of self-discipline" ($M=1.98$) scored very low regarding these factor.

For analysis of **relationship, interpersonal and social stressors** "competing with other students" with a mean score of 2.86 ranked first followed by "not having enough support from others" with a mean score of 2.66. The least factor was "the way fellow students treat me" with a mean score of 2.07.

On **teaching quality, relations with teachers and support from teachers stressors** the three most dominant factors include "delays in marking and feedback" ($M=3.05$), "accessing learning materials" ($M=2.73$) and "understanding the expectation of teaching staffs" ($M=2.69$). And the three least factors include "disorganization of teaching staff" ($M=2.38$), "the way teaching staffs treat me" ($M=2.13$) and "lack of knowledge of teaching staff" ($M=2.10$).

Finally, whilst "getting access to computers and internet" ($M=3.63$), "lack of campus facilities" ($M=3.32$) and "lack of recreational activities on campus" ($M=3.29$) are the three main **environmental, campus, administration and transition** stressors affecting respondents, "transitioning to Polytechnic" ($M=2.62$) and "adjusting to the campus environment" ($M=2.43$) are the two least important factors.

Another significant goal of the study was to ascertain the most important stressor category affecting the students. As shown in Table 3, the leading stressor category among students is "TECATS" ($M=3.02$) followed by "TACS" ($M=2.96$) and "TTBS" ($M=2.92$). The two least factors include "TRISS" ($M=2.37$) and "TISS" ($M=2.33$).

Table3. Dominant Stressors among Students based on Composite Score

| Type of Stress Category | Mean | Std. D | Rank |
|---|------|--------|------|
| Total Environmental/Campus/Administrative/transition Stressors (TECATS) | 3.02 | .889 | 1 |
| Total Academic Stressors(TACS) | 2.96 | .665 | 2 |
| Total Time/Balance Stressors(TTBS) | 2.92 | .817 | 3 |
| Total Teaching quality/Relations with teachers/Support from teachers Stressors(TTRSS) | 2.53 | .832 | 4 |
| Total Relationships/Interpersonal/Social Stressors(TRISS) | 2.37 | .863 | 5 |
| Total Intrapersonal/Self Stressors(TISS) | 2.33 | .806 | 6 |

Notes: $n = 375$; scale: 1= Not at all stressful to 5= extremely stressful

Source: Field Survey, September 2014

Demographic Variables and Stressors

Results of a Mann-Whitney U-test (Table 4.) conducted to find out whether perception total stressor will vary by gender, reveals significant difference between male and female student ($P < 0.02$). Furthermore, male students ($Mdn = 2.79$) rated their level of stress higher than female ($Mdn = 2.5$). A further analysis based on specific stressors showed that with the exception of "TACS", "TTBS" and "TTRSS" there were no statistically significant differences between male and female respondents regarding the "TISS", "TRISS" and "TECATS". However, male students highly rated "TACS" ($Mdn = 3.03$), "TTBS" ($Mdn = 3.01$), and "TTRSS" ($Mdn = 2.56$) than their female counterparts "TACS" ($Mdn = 2.89$), "TTBS" ($Mdn = 2.81$), and "TTRSS" ($Mdn = 2.34$).

Table 4. A Mann-Whitney U Test for comparison of Stressors by Gender

| | Male (n=183) | Female(n= 192) | Z Statistic | P Value |
|----------------|---------------------|----------------|-------------|-------------|
| | Median Score | | | |
| Total Stress | 2.79 | 2.59 | -3.132 | .002 |
| Factors | | | | |
| TACS | 3.03 | 2.89 | -2.133 | .033 |
| TTBS | 3.01 | 2.81 | -2.077 | .038 |
| TISS | 2.23 | 2.14 | -1.042 | .298 |
| TRISS | 2.30 | 2.17 | -1.699 | .089 |
| TTRSS | 2.56 | 2.34 | -2.431 | .015 |
| TECATS | 3.15 | 2.92 | -1.335 | .182 |

*the mean rank difference is significant at the 0.05 level. *Source: Field Survey, September 2014

*Scale: 1= Not at all stressful to 5= extremely stressful

Results of Kruskal Wallis test in table 5 demonstrates that total stress was found to be significant for program of study ($P = .007$). However, Accounting students were found to experience more stress by a mean score of 2.73 compared to any other program studied. A pairwise test conduct reveals a significant difference between PS-ACT ($P = .007$). A further examination based on precise stressor categories shows that two of the six stressors "TTRSS" ($P = .000$) and "TECATS" ($P = .001$) were found to be significantly. Respondents doing Banking and Finance highly ranked "TTRSS" than those doing other programs by mean score of ($Mdn = 2.59$). Follow-up tests were conducted to evaluate pairwise differences among the programs and a significant difference ($p = .000$) was found between three programs. Thus (i) PS –SMS; (ii) PS – ACT; and (iii) PS – BF. Similarly, respondents doing Accountancy rated "TECATS" than any other program by a mean score of ($Mdn = 3.20$). A statistically significant difference ($p = .001$) was also found between PS – ACT for "TECATS".

Table 5. Kruskal Wallis Test for comparison of Students evaluation of Stressors by Program

| | ACT (n=223) | PS (n=41) | BF (n=36) | SMS (n=75) | Chi Square | P Value |
|----------------|---------------------|-----------|-------------|------------|------------|-------------|
| | Median Score | | | | | |
| Total Stress | 2.73 | 2.36 | 2.69 | 2.63 | 12.051 | .007 |
| Factors | | | | | | |
| TACS | 3.00 | 2.91 | 2.83 | 3.05 | 3.256 | .354 |
| TTBS | 2.91 | 2.83 | 2.90 | 2.94 | 1.195 | .754 |
| TISS | 2.23 | 1.92 | 2.38 | 2.17 | 7.605 | .055 |
| TRISS | 2.29 | 2.02 | 2.25 | 2.14 | 4.715 | .194 |
| TTRSS | 2.56 | 1.65 | 2.59 | 2.43 | 28.092 | .000 |
| TECATS | 3.20 | 2.45 | 3.05 | 3.03 | 15.865 | .001 |

*the mean rank difference is significant at the 0.05 level. *Source: Field Survey, September 2014

*Scale: 1= Not at all stressful to 5= extremely stressful

The findings from Kruskal-Wallis test also revealed a statistically significant difference in level of total stress and the year of education ($P = .000$) (Table 6). Year three students ($Mdn = 3.30$) were discovered to exhibit higher level of stress than any other year group. In addition, a pairwise test conducted found a significant difference between year 1 & year 3 ($P = .000$) and year 2 & year 3 ($P = .043$). On the specific stress categories there was a significant differences in ranking of stressors "TACS" ($P = .003$), "TTRSS" ($P = .000$) and "TECATS" ($P = .000$) across the three levels of study. Respondents in year 3 recorded a higher median score for the three factors "TACS" ($Mdn = 3.17$),

"TTRSS" ($Mdn=2.73$) and "TECATS" ($Mdn= 3.30$) compared to respondents in year 2 which recorded a median score of "TACS" ($Mdn=2.90$), "TTRSS" ($Mdn=2.51$) and "TECATS" ($Mdn= 3.05$) and year 1 with a median score of "TACS" ($Mdn= 2.78$), "TTRSS" ($Mdn=2.71$) and "TECATS" ($Mdn= 2.49$). A further pairwise test conducted shows significant difference ($p=.003$) between years 1& 3 students for TACS; ($p=.017$), ($p=.000$) and ($p=.044$) was found between years 1& 2, years 1& 3 and years 2& 3 for TTRSS respectively. Similarly, a significant difference of ($p=.003$) and ($p=.000$) was found between years 1&2 and years 1& 3 for TECATS respectively

Table6. Kruskal Wallis Test for comparison of Students evaluation of Stressors by Year of Education

| | Year 1 (n=111) | Year 2 (n=128) | Year 3 (n=136) | ChiSquare | PValue |
|----------------|---------------------|----------------|----------------|-----------|-------------|
| | Median Score | | | | |
| Total Stress | 2.50 | 2.65 | 2.83 | 17.02 | .000 |
| Factors | | | | | |
| TACS | 2.78 | 2.90 | 3.17 | 11.374 | .003 |
| TTBS | 2.87 | 2.78 | 3.11 | 4.043 | .132 |
| TISS | 2.16 | 2.13 | 2.28 | 3.143 | .208 |
| TRISS | 2.13 | 2.22 | 2.31 | 2.781 | .249 |
| TTRSS | 2.17 | 2.51 | 2.73 | 26.559 | .000 |
| TECATS | 2.49 | 3.05 | 3.30 | 27.298 | .000 |

*the mean rank difference is significant at the 0.05 level. *Source: Field Survey, September 2014

*Scale: 1= Not at all stressful to 5= extremely stressful

On the number of workload or credit hours done, an outcomes from Kruskal-Wallis test revealed a statistically significant difference in level of total stress ($P=.001$) (table 7). Students doing 18 credit hours experience more stress than any other workload by a mean score of 2.93. A pairwise test indicates a significant difference between ($P=.001$) between 19CRH's and 15 CRH's. For individual stress categories, the Kruskal Wallis test revealed a statistical significance difference in ranking of stressors "TTRSS" ($P=.000$) and "TECATS" ($P=.000$) across the five levels of workload. Respondents doing 18 CRH's recorded a higher median score for the two stressors; "TTRSS" ($Mdn= 2.86$) and "TECATS" ($Mdn=3.50$) compared to respondents doing other contacts hours. A further pairwise test conduct shows significant difference ($p=.000$) between 19 & 15 CRH's for "TTRSS". Similarly, a significant difference of ($p=.000$), ($p=.029$) and ($p=.023$) was found between 19 & 15 CRH's, 19 & 24 CRH's and 19 & 18CRH's for "TECATS" respectively.

Table7. Kruskal Wallis Test for comparison of Students evaluation of Stressors by CRH's/Workload

| | 15 CRHs (n=165) | 18 CRH's (n=12) | 19 CRH's (n=131) | 20 CRH's (n=40) | 24 CRH's (n=27) | Chi-Square | P Value |
|----------------|---------------------|--------------------|---------------------|--------------------|--------------------|------------|-------------|
| | Median Score | | | | | | |
| Total Stress | 2.79 | 2.93 | 2.51 | 2.65 | 2.61 | 18.53 | .001 |
| Factors | | | | | | | |
| TACS | 3.05 | 3.17 | 2.82 | 3.04 | 2.97 | 8.408 | .078 |
| TTBS | 2.89 | 3.24 | 2.82 | 3.28 | 2.73 | 5.292 | .259 |
| TISS | 2.24 | 2.80 | 2.16 | 2.15 | 1.90 | 5.493 | .240 |
| TRISS | 2.33 | 2.50 | 2.12 | 2.08 | 2.23 | 6.885 | .142 |
| TTRSS | 2.66 | 2.86 | 2.20 | 2.44 | 2.45 | 22.568 | .000 |
| TECATS | 3.25 | 3.50 | 2.45 | 2.97 | 3.21 | 34.235 | .000 |

*the mean rank difference is significant at the 0.05 level. *Source: Field Survey, September 2014

*Scale: 1= Not at all stressful to 5= extremely stressful

Level of Stress and Academic Performance

The correlation between level of stress and academic performance is shown in Table 8. The results indicate that there is no significant correlation between the level of stress and academic performance ($P=.155$). Though the coefficient values of specific stressor categories shows a positive relationship, the values are not statistically significant except TISS ($P=.023$). The rho value (-0.117) indicates that there is a significant negative correlation between level of perceived stress for TISS and the academic performance of students.

Table 8. Non Parametric Correlation between Stressors and Student Performance

| Non-Parametric Correlation (N=375) | | Performance (GPA) | |
|------------------------------------|-----------------|-------------------------|---------|
| | | Correlation Coefficient | P-Value |
| Spearman's rho | Performance | 1.000 | - |
| | Total Stressors | 0.74 | .155 |
| | Factors | | |
| 1 | TACS | .081 | .117 |
| 2 | TTBS | .061 | .237 |
| 3 | TISS | -.117* | .023 |
| 4 | TRISS | .039 | .455 |
| 5 | TTRSS | .034 | .506 |
| 6 | TECATS | .010 | .845 |

*the mean rank difference is significant at the 0.05 level. *Source: Field Survey, September 2014

*Scale: 1= Not at all stressful to 5= extremely stressful

DISCUSSION

As found in other studies, students in this study identified "getting good enough grade", "study for test and exams" and "amount of material to study" as the major "ACS" impacting on their stress level. These findings are consistent with previous studies (Baldwin et al., 2009; Agolla and Ongori, 2009; Erkutlu and Chafra, 2006).

In descending order, students also indicated "managing all my different responsibilities", "being too tired to study properly" and "inconvenient personal timetabling" as the most important "TBS". With the emergence of various forms of social media and the latitude of freedom available to current generation, finding a balance between socialization and studying is becoming a daunting task for students. Much of the time students spend on the social media does not provide any educational benefits.

The "fear of failing", "dealing with personal issues" and "my study skills" remain the three most important factors influencing "ISS". According to Shaver (1976), many individuals in society suffer from fear of failing due to the importance placed upon success in their educational goals and careers. Individuals who demonstrate fear of failure are unsure about their ability to be successful (Covington and Omelich, 1991), and do not believe in their capacity to avoid failure in their endeavours and are likely to attach negative and painful consequences to the act or experience of failing at a given task or goal (Shultz, 1999). Such individuals are frequently depressed, anxious, confused, or angry; they also lack confidence (Sherman, 1988). Closely related to the fear of failing is the inability of the student to manage his or her "study skills". Developing and using effective study skills does not only reduce stress by making you feel more in control of your work, but makes you confident that you will succeed. However, these are found to be absent among most of the students been studied. Also, the inability of students to "deal with personal issues" demonstrate their reluctance to talk and share their personal problems with colleagues and counselling units. There is a saying that a problem shared is half solved. In that case voicing out their challenges will help them reduce their level of stress to an appreciable level.

It has been argued that the degree of social support an individual has in a situation may affect the entire stress process (Carlson and Perrewe, 1999). This support may come from several sources in the tertiary environment such as peers, counsellors, lecturers etc. However, the study found "not having enough support from others" as one of the main causes of "RISS". The absence of social support would inevitably reduce students coping mechanism hence their ability to negate the effects of this stressors (Thomas and Ganster, 1995; Gore, 1987). Though competition is generally seen as a way of motivating individual to the top, consistent with the study of Sinha et al. (2001) this study found "competing with other students" as one major stressors of "RISS" among the participants. It is to be noted that comparison is the thief of joy and factually, there is always someone better than you are. However, using others' goals as benchmarks for your own success would definitely be a challenge. Perhaps the type of competition existing in the environment may be promoting individualism rather than the collectivism as each and everyone tries to undo the colleague.

Feedback, according to Hattie and Timperley (2007), is one of the most powerful influences on learning and achievement. Proponents of immediate feedback theorize that the earlier corrective

information and the manner it is provided, the more likely it is that efficiency can be achieved (Phyeand Andre, 1989). This study found "delays in proving feedback on marking" as one of the causes of "TRSS". Feedback does not only provide a guide to student revision and improve their performance in the future. It provides avenue for students to understand an instructor's expectations, grasp methodology, gauge their progress in a course, and see their writing from a reader's perspective. Delayed or absence of feedback denies students this opportunity and allows them to continue with the same mistakes. Another factor rated high by student on "TRSS" was "accessing learning materials".

On the side of "ECATS" the study participants first indicate "access to computers and internet" which can be classified as "technology use". The primary use of technology for students is for undertaking and submission of their assignments in addition to interpersonal communication through email, instant messaging, and chat programs (Howard *et al.*, 2001; McKenna and Bargh, 2000). The absence of or unreliability of the technology on campus definitely would make the task of the individual very difficult in terms of access to current and reliable material for the completion of assignment and meeting deadlines. Also very significant of note is "lack of campus facilities" which is consistent with the work of (Kwesiga, 2002). According to him facilities in any environment and the number of facilities a school offers usually determine the quality of the school, which in turn affect the performance and accomplishment of its students. Institutions with better facilities to support students are also better placed to manage the level of stress among its clients. However, when composite score was considered the dominant stressors were found to be "TECAT" followed by "TAC". The possible reason for the dominance of these two factors is that they have a direct impact on academic work within the tertiary environment.

In support of *hypothesis 1*, the findings from Mann-Whitney U-test indicate male and females differ in their perception to stress. Furthermore the significant differences based on gender is rooted in "TACS", "TTBS" and "TTRSS" stressor categories. This is consistent with the works of many researchers (Mazumdar, 2012; Sulaima *et al.*, 2009; Misraand Castillo, 2004). However, a further analysis reveals male students experience higher stress levels compared to their female counterparts which is contrary to general finding in the literature (Mazumdar, *et al.*, 2012; Calaguas, 2011; Sulaiman *et al.*, 2009; Garrett, 2001). This finding is surprising and we are unable to explain what really accounts for this phenomenon.

Consistent with earlier research (Be here, *et al.*, 2011) students stress level was also found to differ with regards to program of study, supporting *hypothesis 2*. This significant differences are indicated in "TRSS" and "TECATS" for stressor categories for BF and ACT respectively. The situation with BF is not surprising considering the fact that BF program is only in their second year. Materials to assist students in their studies are not readily available and they are acquired as when students move into the next semester and sometimes in the middle of the semester. Also significant is that students do not have any previous records such as past questions, to refer to and teaching assistants to consult.

Contrary to the finding of (Bataineh, 2013), the stress level of students in this study were found to be significantly different with relation to the year of education, supporting *hypothesis 3*. Though several studies reveal that first year students experience more stress than continuing students (Pritchard *et al.*, 2004; Hudd *et al.*, 2000; Towbes and Cohen, 1996; D'Zurilla and Sheedy, 1991). The reverse is true in this study. Final year students were found to experience more stress for the categories "TAC", "TTRS" and "TECAT". As students reach the final year, the anxiety for those who have performed poorly in the previous semester increases as they try to recover lost GPA to make good grades. Additionally, this category of students are engaged with administration for processing of several documents. Possibly the inadequacy of support from the staffs can add up to their level of stress.

The results from the study also support *hypothesis 4*. Thus the level of stress was found to differ based on students workload and it's largely influenced by "TTRS" and "TECATS" categories. However, the findings reveal that students doing less credit hours (workload) are more stressed than others doing higher credit hours. This is contrary to the works of (Ahmed *et al.*, 2013; Talib and Zai-ur-Rehman, 2012; Smith *et al.*, 1995; Gmelch and Burns, 1994). This finding supports the views held by Euan and Helen (2009) that relationship between stress and workload is more complex. The main issue here may not be the actual hours being done but rather the students' perceptions of what constitutes a normal workload. For this study majority of participants doing 18 credits hours are final year students. Though the hours are minimal, the content of their syllabus is voluminous. In addition, they are

engage in project work, requiring them to combine field and course work. Conceivably, this scenario might have accounted for this findings.

Finally, the Spearman correlation coefficient reveals that stress and academic performance of students are not related, rejecting *hypothesis 5*. This is also evident from table 1 where majority of the respondents, thus 80.8% had GPA between second class upper and second class lower. This result is consistent with earlier studies (Siraj, 2014; Habibah *et al.*, 2011; Rafidah *et al.*, 2009; Womble, 2003; Sanders and Lushington, 2002) where students' stress does not significantly correlate with their GPAs. Despite the introduction of practical work into the curriculum activity of the business students, the practical aspect is not enough to stress students as compared to engineering and other practically oriented programs. The rho values of each stressor category and total stress are weak implying the stress level being experience by the participants is not that high to the extent that they could not cope with their academic activities. However, there is a significant correlation between the level of perceived stress for TISS and the students' academic performance. The rho value of -0.117 implies if the level of perceived stress for this category is high, academic performance would be lower and vice versa. But overall, this factor is not significant enough to affect the overall academic performance of students.

CONCLUSION AND IMPLICATIONS

The purpose of this paper is in three folds. The first is to identify the sources of stress within the area studied; the second is to examine whether there are significance differences between stress among participants based on gender, program of study, workload and level of education; finally, it explored the relation between stress and students performance.

On the sources of stress, the outcome from the study identified the major sources of stress based on each category examined. The findings further suggest, "TECATS" and "TACS" as the most dominant sources of stress category among students. These sources are directly related to their academic work. It is therefore imperative that management and lecturers take the necessary steps to reduce the sources of stress among students by creating of stress awareness through giving students realistic warnings, recommendations, and reassurances about stress which is also called "stress inoculation". These steps if appropriately taken, would serve as a preventive approach so that the negative aspects of stress can be avoided in the future.

Overall, the level of stress was found to be significant for all demographic variables evaluated. However, the causal factors for stress categories have been mixed. For example, for gender, significant difference was found for TAC, TTBS and TTRSS; TRSS and TECATS were found to be significant for program of study; TACS, TTRSS and TECATS were found to be significant for level of education. Finally, TTRSS and TECATS were significant for workload. The findings highlight the fact that the underlying causes of significant difference between stress and demographic factors assessed varies. Consequently, we advise the adoption of separate policy for each variable since the adoption of a holistic policy to address the issues is likely to fail. Our findings also show that for some of the factors that show significant difference do not support previous work by researchers. For example the study finds males to experience more stress than females. There is a need to properly investigate the causal factors and address this phenomenon. It is however advisable authorities focus on extra curriculum engaged in by the male students in explaining this distinctiveness. Worthy of note from the discussions is that students doing less credits hours were experiencing more stress than those doing more credit hours. As argued earlier, this situation may be possibly due the voluminous nature of the course content or poor delivery of modules by lecturers. Authorities must take the necessary steps to address either of these problems. Another significant conclusion from the study is that TISS and TRISS categories were found not to be significant for any demographic variable examined.

Finally, even though there was a positive correlation between stress and performance, the relationship was found to be weak and no significant effects were found between the stress and academic performance. This implies that irrespective of stress level, students can still achieve academic excellence. It also demonstrates that students themselves found a way of minimizing the effects of stress on their performance. This suggests that authorities undertake further study on the ways students manage to cope with stress, develop a policy and use it in educating the larger students' population.

Limitations

This study is limited by two main factors. First, convenience sampling was used in the final stage of multistage sampling to select actual number of study participants. This method calls for caution in generalization of the findings to similar environments. We advise the use of either simple or systematic random sampling in the replication of the study. Second, the study design was cross-sectional. This allows for study of the participants for single moment in time. For this study, it was the first semester of 2013/2014 academic year. There is a possibility of situations changing during the student's course of life. However, in a longitudinal study, researchers conduct several observations of the same subjects over a period of time. It enables researchers to detect developments or changes in the characteristics of the target population at both the group and the individual level. Further studies in this area must consider applying this design.

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