ENSIGN COLLEGE OF PUBLIC HEALTH, KPONG, EASTERN REGION, GHANA

EXPLORING THE EFFECT OF STRESS AND TIME MANAGEMENT PRACTICES ON THE ACADEMIC PERFORMANCE OF FIRST YEAR STUDENTS IN THE UNIVERSITY OF CAPE COAST, GHANA

BY

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DECLARATION AND CERTIFICATION

I, Joseph Wesley Ansah, hereby declare that this submission is my own work towards the Master's Degree in Public Health and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the College, except where due acknowledgement has been made in the text.

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DEDICATION

This work is dedicated to the Almighty God and my lovely wife Mrs Irene Ruby Wesley-Ansah

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DEFINITION OF TERMS

TERM	DEFINITION
Short Range Planning	Encompasses a variety of activities that require planning in the short run, either within the day or within the week
Time Attitudes	Attitudinal nature where time is used constructively and one feels in charge of the way time is spent
Long Range Planning	Encompasses a range of activities that require planning with a relatively wide time window by setting goals for an entire quarter, keeping track of it and not waiting until the last minute to finish up an assignment
General Time Management	This is the overall time management practice encompassing all the subscales (SRP, LRP, TA)
Stress	Process in which the environment demands on an organism, strains the adaptive capacity to the extent of causing both psychological and biological changes which could put the person at risk of illness

LIST OF ABBREVIATIONS

GPA	-	Grade point average
GTM	-	General time management
LRP	-	Long range planning
PSS	-	Perceived Stress Scale
SRP	-	Short range planning
TA	-	Time attitudes
TMQ	-	Time Management Questionnaire
UCC	-	University of Cape Coast
VIF	-	Variance Inflation Factor

ABSTRACT

Background: First year university students are particularly prone to stress. Equally challenging is time management. These have been postulated to impact on their academic performance. The majority of work in this field has been undertaken in developed countries. Very little is known about the effect that stress and time management have on the academic performance of students in universities in Ghana. This study explored the relationship between stress, time management and the academic performance of students at the University of Cape Coast.

Methods: A cross-sectional study was done using a structured questionnaire which had three sections: the 10 item perceived stress scale developed by Cohen in 1994, the time management questionnaire developed by Britton and Tesser in 1991 and a socio-demographic section. They were completed by the students before the end of first semester examinations. The academic performance was measured using the certified GPA at the end of the first semester. The time management tool assessed long range planning (LRP) which encompasses setting priorities and planning for a whole quarter/semester, short range planning (SRP) which involves day to day or immediate weeks planning and time attitudes (TA) which measures ability of being in charge of one's own time.

Univariate analysis was done to determine the stress levels, time management practices and academic performance of the students. Simple linear regression, correlational analysis and stepwise multiple regression was done to explore the relationship between stress and academic performance, time management practices and academic performance and possible interactions between stress, time management practices and academic performance.

Results: Out of the 416 (68.3%males) respondents, 349 studied Sociology and 67 studied Computer Science. Majority of the respondents (79.3%) were aged between 19 and 22 years. The prevalence of mild, moderate and severe stress were 12.6%, 76.7% and 10.7% respectively. Students showed good (56.7% of students), moderate (37.5%) and bad (5.8%) time management practices. The average GPA score was 2.48 (standard deviation was 0.59).

Stress levels had a significant but weak linear negative correlation (Pearson's coefficient=-0.136, at 0.05 significance level, p-value=0.01) with GPA whiles long range planning had a significant

but weak linear positive correlation (Pearson's coefficient=0.143, at 0.05 significance level, p-value<0.01) with GPA. The other time management scales SRP (p-value=0.57), TA (p-value=0.15) and GTM (p-value=0.12) had no significant relationship with GPA.

The final module derived after a stepwise forward multiple linear regression showed long range planning to be the most predictive of GPA with a standardized coefficient of 0.1599 (p-value<0.01 at 0.05 significance level) followed by stress with 0.1196 (p-value=0.02 at 0.05 significance level) and then SRP with 0.1173 (p-value=0.03 at 0.05 significance level) The combination of the three factors explained 3.7% of the variability in GPA.

Conclusion: High stress levels and poor long range planning could be impacting adversely on student academic performance at the University of Cape Coast. The university authorities need to incorporate stress avoidance mechanisms in campus activities. Students need to be supported to adopt long range time management techniques.

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CHAPTER ONE

INTRODUCTION

1.1 Background to study

The University student population, which feeds the world with immediate future leaders, is becoming a fast growing one due to the generalized global awareness of the importance of education, hence the health of this population especially the psychological and mental health aspect cannot be neglected (Stewart-brown et al. 2000). Poor academic performance can lead to psychological and mental health issues and even lead to suicidal tendencies. This population is known to be prone to stress (World Health Organization, 1994) and struggle to maintain good time management practices, (Al Khatib 2014) and these factors are known to impact significantly on their academic performance

Literature classify the first year university students as the most vulnerable to these problems compared to the higher level students.(Bayram & Bilgel 2008) Although much is known about the impact of these two factors, little is known about their comparative and combined effect on academic performance, literally speaking, "how much weight" each factor contributes to academic performance. This study explores this lacuna with the view to make suggestions on how to improve students' academic performance through effective stress and time management.

1.1.1 Stress

Stress levels are known to be high among university students with a study in Turkey(Bayram & Bilgel 2008) finding out that, 21.2% had mild stress levels,20.1% had moderate stress levels,

6.1% had severe stress levels and 0.8% had very severe stress levels out of a sample of 1,617 students. Other research findings around the globe were similar to the findings of the study done in Turkey (Sossah et al. 2015). In Ghana,(Amponsah & Owolabi 2011) found out that 101(25.4%) respondents had low perceived stress level, 280(70.4%) had moderate perceived stress while 14(3.5%) demonstrated high perceived stress out of 398 participants.

1.1.2 Time management practices

Good time management practices on the other hand, is also a major problem for the university student since the student finds it difficult most of the time to strike a balance between academics and social life. (Britton and Tesser, 2014) established that 67% of undergraduate students admitted to time management as a topmost concern. In a study done in the UAE by(Al Khatib 2014) with a sample size of 352 students, 59.7% had moderate time management skills, 25.5% had high time management skills and 14.8% had a low time management skill. Similar results were obtained by (Tanriogen and Iscan, 2009) indicating that students lack a sufficient amount of knowledge on how to manage their time.

1.1.3 Stress & academic performance

In the instance of excessive stress, students are affected adversely both academically and health wise. A longitudinal study done by (Vaez 2008) found out that, experienced stress due to “not coping academically” and “study support demands” are substantial barriers to achieving good academic performance. Most studies show a significant negative relationship between stress and

academic achievement (Pritchard & Wilson 2016) but some findings proved otherwise, including a study done in Ghana(Azila-gbettor et al. 2015)

1.1.4 Time management practices & academic performance

Most available literature goes to buttress the point that time management is a significant and great contributor to academic success. (Miqdadi & Elmousel 2014; Macan et al. 1990) indicated that time management is highly related to academic performance.(Britton and Tesser, 2014) found a specific relationship between time management and college grades and (Babayi et al. 2013) found a high relationship between time management and academic performance. (Balduf 2009) indicated that poor time management can contribute to academic under achievement.

1.2 Problem statement

University students are vulnerable to stress due to high expectations on academic performance in a highly competitive environment and struggle to achieve appropriate time management practices especially in their first year. The knowledge of how stress and time management practices impact on academic performance is needed to guide university authorities on how to improve course scheduling, provide recreational facilities and counseling services. Very little is known about this among students in tertiary institutions in Ghana.

1.3 Significance of the study

This study explores the gaps stated earlier and informs on policies based on the scientific knowledge obtained to improve academic performance through stress and time management especially among first year students and adds a Ghanaian perspective to the body of knowledge on the interactions between stress, time management practices and academic performance among university students.

Furthermore, (Amponsah & Owolabi 2011) conducted a research in fresh university students in the University Of Cape Coast looking at the levels of stress among this group and it's linkage to some socio-demographic characteristics but not its effect on academic performance hence this study adds on to such knowledge and allows for good comparison since it was conducted at the same study site with the same stress tool and the same target population and that is first year students

1.4 Hypothesis

From the available background and literature, the following hypothesis were made

For specific aim 1

- H_0: There is no significant difference in the stress levels of the Computer Science students compared to Sociology students
- H_1: There is a significant difference in the stress levels of the Computer Science students compared to Sociology students

- H_0: There is no significant gender difference in the stress levels among the students
- H_1: There is a significant gender difference in the stress levels among the students
- H_0: There is no significant difference in the stress levels among the different age groups
- H_1: There is a significant difference in the stress levels among the different age groups

For specific aim 2

- H_0: There is no significant gender difference in the time management practices among the students
- H_1: There is a significant gender difference in the time management practices among the students
- H_0: There is no significant difference in the time management practices among the different age groups
- H_1: There is a significant difference in the time management practices among the different age groups

For specific aim 3

- H_0: There is no significant gender difference in academic performance among the students
- H_1: There is a significant gender difference in academic performance among the students

For specific aim 4

- H_0: There is no significant relationship between stress levels and academic performance
- H_1: There is a significant relationship between stress levels and academic performance

For specific aim 5

- H_0: There is no significant relationship between time management practices and academic performance
- H_1: There is a significant relationship between time management practices and academic performance

1.5 Research questions

1) What are the stress levels of the first year UCC students?
2) What is the level of time management skills among the first year UCC students?
3) Is there an effect of age, gender and course of study on the stress levels, time management practices and academic performance among these students?
4) Is there any relationship between the stress levels and academic performance of these students?
5) Is there any relationship between time management practices and academic performance?
6) Is there any interaction between stress, time management practices and academic performance?

1.6 General objective

To explore how stress and time management practices affect the academic performance of first year students of the University of Cape Coast in Ghana.

1.7 Specific objectives

1) To measure and describe the stress levels among the students
2) To measure and describe the time management practices among the students
3) To measure and describe the academic performance among the students
4) To explore the relationship between stress levels and academic performance
5) To explore the relationship between time management practices and academic performance
6) To explore any possible interaction between stress levels, time management practices and academic performance

1.8 Profile of Study Area

Cape coast doubles as the capital of the Cape Coast Metropolitan Assembly and the Central Region of Ghana. The metropolitan is one of the seventeen (17) districts in the Central Region and bordered to the north by the Twifo/Heman/Lower Denkyira District, to the south by the Gulf of Guinea,to the west by the Komenda/Edina/Eguafo/Abirem Municipal and to the east by the Abura/Asebu/Kwamankese District.

The University of Cape Coast (UCC) which was established in 1962 is located in Cape Coast and lies on a hill overlooking the Atlantic Ocean. The university was established as a result of the urgent need of highly qualified and trained graduate teachers to teach the second cycle learning institutions of which the existing two universities were deficient. The institution has now advanced and offer more professional courses such as medicine, law, masters programmes and so on.

1.9 Scope of study

There are multiple factors that affect the academic performance of students but this study narrows mainly on exploring how two factors namely stress and time management practices affect the academic performance of first year students of UCC. It also focuses on measuring and describing the stress levels and time management practices of these students, the relationship between stress and academic performance, the relationship between time management practices and academic performance and the interactions between stress, time management practices and academic performance. Conclusion and recommendations are made to improve the academic performance of the students through time and stress management.

1.10 Organization of Report

This work is mainly organized into six chapters with definition of the key terms used in the study, an abstract giving an executive summary of the whole study, list of abbreviations used in the report, list of the tables and figures preceding it and references and appendices containing the participant information and consent, ethics clearance for the study and sample questionnaire receding it.

Chapter one gives the background of the study, the problem statement, rationale behind the study, the hypothesis made based on available literature and the questions and objectives this study seeks to answer and achieve.

Chapter 2 gives the various available relevant literatures about the scope of this study.

Chapter 3 gives into details how the whole research was done and what the methodology is.

Chapter 4 presents the results obtained after analysis of the data collected.

Chapter 5 discusses the relevant findings of this study in comparison to the available literature presented in chapter 2 and puts the results into context and also brings out policy and public health implications.

Chapter 6 delivers on conclusions made from the study and the various recommendations to stakeholders.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter will review literature concerning the various interactions between stress, time management practices and academic performance among university students with the following guidelines; stress levels among university students, tools for measuring stress levels, stress and gender, stress and academic performance, stress and age, stress and course of study, time management practices among university students, tools for measuring time management practices, time management and gender/age, time management and academic performance, academic performance, academic performance and gender and relationship between academic performance, stress and time management practices.

2.1 Stress

The health and related issues regarding university students, who are the immediate future leaders, has been given little attention although it is known to influence their lifestyle and productivity in and after school. They are more prone to stress than their peers who are out of school and perceive their emotional health to be more of a problem than their physical health but unfortunately this area has been neglected by public health practitioners (Stewart-brown et al. 2000). Stress is an aspect of university student health which is gaining recognition because of its rising incidence (Agolla, J. E. & Ongori 2009; Redfern 2000). This is seen as a public health issue because increased stress among these students leads to mental disorders (Stallman, H. M. & Hurst C. P. 2016) which are part of the non-communicable diseases gaining grounds in the

morbidity and mortality around the globe as against communicable diseases. Actually out of the ten leading causes of disability among this population, mental disorder is among the top three with the other causes also indirectly related to mental disorder (Murray C., 2002). The mental health action plan (2013-2020) of the World health Organization actually admonishes for collective evidence based approach to improve mental health (World health Organization, 2013) hence a study on the stress levels of these students is really needed for public health action and must not be overlooked. The definition and concept of stress is still under debate and lacks a universally accepted one although a broad knowledge base exist (Orlans 1991) but the general modern acceptable definition is one of interaction between the situation and the individual (M i c h i e 2002).This is exhibited by (Cohen, S. D., William, J., & Skoner 1999) defining stress as a process in which the environmental demands on an organism, strains the adaptive capacity to the extent of causing both psychological and biological changes which could put the person at risk of illness and (Lazarus 1966) defining 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. Excessive stress can lead to mental disorders such as anxiety and depression (Cheryl Regehr, Dylan Glancy 2013)

University students are more prone to stress than their counterparts who are not in school (World Health Organisation, 1994; Stallman, 2010). There is a high prevalence of stress among first year students compared to those of higher levels (Bayram & Bilgel 2008; Dyson R 2006; Nerdrum P, Rustøen T 2006). Studies done by (Pierceall, E. A., Kim 2007) revealed that 75% to 80% of college students are moderately stressed and 10% to 12% are severely stressed whereas (Hudd, S., Dumlao, J., Erdmann-Sager, D., Murray, D., Phan, E., Soukas, N., Yokozuka 2000) established that during a typical semester, 52% of college students experience high stress levels.

In Ghana (Amponsah and Owolabi, 2011) reported 25.4%(101) low perceived stress levels, 70.4%(280) moderate perceived stress and 3.5%(14) high perceived stress levels.

2.2 Stress and Gender

There are reported gender influences on stress among university students. The female student is generally known to report high stress levels compared to the male counterparts (Rice, Kenneth G.; Van Arsdale 2010; Shah et al. 2010; Abdulghani et al. 2011; Bam et al. 2014; Dušan V. Backović1, Jelena Ilić Živojinović1 2012). The mean stress levels among females were significantly higher than the males in a study done by (Bayram & Bilgel 2008). (Kumar & Bhukar 2013) also found out that, there was a significant difference in the stress levels arising from stimuli of frustration and inhibition; overload; time-urgent and aggressive behavior, and these levels were higher in girls than that of boys. Similar findings were made by (Misra & McKean 2000).These findings indicate that gender has an effect on stress levels among students and that females experience high stress levels than males which (Kumar & Bhukar 2013) tried to explain that it may be related to the social and custom restrictions on females in India. In Ghana, a study done by (Amponsah & Owolabi 2011) reported a significant difference in stress levels between males and females. Male students had lower mean perceived stress of 16.67 as compared to their female counterparts who had 18.11. The mean perceived stress for both male and female undergraduates fell within the moderate level. On the contrary, (Sitz, E.H., Poche 2006) reported lower stress levels among the females and explained the results to be due to display of optimism among women than men. (Taylor 2000) also found that men are more susceptible to the health effects of stress.

2.3 Stress and Age

(Bayram & Bilgel 2008) found out in their study that the younger age group in the sample of study had a significant higher mean stress level compared to the higher age groups. (Brody, L.R., Hall 1993) found an inverse correlation between stress and age, indicating that, the perception of stress decreases as age increases. These findings are not supported by (Aldwin, C.M., Sutton, K. J., Chiara, G., Spiro 1996) who first of all argue the fact that, the methods used across board are different and varies; their research findings revealed that there was no significant age differences with the perceived stress. In Ghana,(Bam et al. 2014) found the level of stress to decrease with increasing age.

2.4 Stress and Academic Performance

Although, most of the literature show a significant negative relationship between stress and academic performance (Pritchard & Wilson 2016; Russell, Richard K.; Petrie 1992) some studies got contrary results; for example, (Rafidah et al. 2009) investigated the impact of stress factors on academic performance of Pre-Diploma Science students at the University of Technology MARA (UiTM), Malaysia and none of the stress factors significantly affected the academic performance of students. (Azila-gbettor et al. 2015) also revealed that there was no significant relationship between stress and academic performance among business students in Ho Polytechnic. A study by (Siraj et al. 2014) aimed at exploring the association between stress levels and academic performance showed that respondents with a high and severe stress level were observed to have higher cumulative grade point average (CGPA).(Saklofske et al. 2012) had a negative relationship but was not significant.

2.5 Stress and programme/course of study

The programme or course of study is known to influence stress levels among students in the tertiary institution. Courses that involve practical hands on experience or vocation is known to cause more stress on students offering such courses(Bam et al. 2014; Kumar & Bhukar 2013; Dušan V. Backović1, Jelena Ilić Živojinović1 2012; Abdulghani et al. 2011; Miqdadi & Elmousel 2014; Azila-gbettor et al. 2015)

2.6 Time management practices

Time is an inaccessible factor and because of that, some school of thought believe the word "time management" is inappropriate and deceiving and should rather be" dealing with time" since that is the factor we can influence (Claessens et al. 2007). Time management has been referred to as techniques for managing time (Macan et al. 1990) , a technique for effective time use, planning and allocating time (Burt, C. D., & Kemp 1994); the degree to which individuals perceive their use of time to be structured and purposive (Strongman, K.T. and Burt 2000); a technique to increase the time available to pursue activities (King, A. C., Winett, R. A., & Lovett 1986); self-regulation strategies aimed at discussing plans, and their efficiency (Eilam, B. and Aharon 2003). (Iz, F.B. & Ozen 2010) argued that time management refers to the process of stacking greater amounts of work and activity into a certain length of time. Research has also reported evidence for the multi-dimensional nature of the time management construct conceptualized in terms of short-range planning, time attitudes and long-range planning (Britton and Tesser, 2014).(PEHLİVAN 2013) reported "moderate level" time management scores for students in a university in Turkey.

2.7 Time management and gender/age

(Misra & McKean 2000; Al Khatib 2014) reported time management scores with female students obtaining higher average scores than male students. Most literature report good time management practices among females than their male counterpart (Trueman, M. & Hartley 1996) with this particular study reporting high time management skills among the matured students (over 25 years) than the younger students. (Macan et al. 1990; Covic, T., Adamson, B. J., Lincoln, M., & Kench 2003) found specific relation between gender and time management skills by reporting that females have high mechanics of time management as in making list, keeping a diary and so on than males. (PEHLİVAN 2013) found a significant difference only with respect to long range planning but the rest of the scales (general time management, short range planning and time attitudes) were all not significant in terms of gender differences.

2.8 Time management and academic performance

Time management is significant in predicting academic performance and has a high positive relationship (Tanrıöğen & Işcan 2009; Miqdadi & Elmousel 2014; Al Khatib 2014; Nasrullah & Khan 2015; Balduf 2009). In general, studies report that time management exerts a positive influence on student learning outcomes (Claessens et al. 2007). On the contrary, a study in Nigeria by (Olowookere et al. 2015) reported a non-significant relationship between academic performance and time management. In Turkey, (PEHLİVAN 2013) reported a positive significant relationship between students' grade point averages and their time attitudes and long-range planning sub-scales and also found out that the time management skills of these students are one of the predictors of their grade point averages.

2.9 Academic performance

The grade point average (GPA) is the most widely researched and objective measure with good internal reliability and temporal stability for assessing academic performance in the tertiary level of education (Bacon, D. R., & Bean 2006; Kobrin, J. L., Patterson, B. F., Shaw, E. J., Mattern, K. D., & Barbuti 2008) not withstanding its counter argument arising as a result of grade inflation (Johnson 2003) and institutional grading differences (Didier, T., Kreiter, C., Buri, R., Solow 2006)

2.10 Academic performance and gender

A meta-analysis of gender differences in academic achievement with data pulled from 1914-2011 revealed a constant advantage of the female over the male. The female advantage was larger in the language courses and smaller in the mathematics courses (Voyer et al. 2014)

2.11 Academic performance, stress and time management

(Al Khatib 2014) reported that, higher time management and lower perceived stress were associated with high levels of academic achievement with time management being the most significant predictor of academic achievement. Time management explained 26 % of the variability whiles perceived stress accounted for an additional 11.2% of the variability in academic achievement. The final module with the sub scales of time management included had 29.4% (R = .543) of the total variance in academic performance explained by the above mentioned variables.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This section discusses into details the systematic approach that was used in collecting the data and analyzing it. It covers the following sections; Study methods and design, Data Collection Techniques and Tools, Study Population, Study Variables, Sampling, Pre-testing, Data Handling, Data Analysis, Ethical Consideration and Limitations of Study

3.1 Study methods and design

The cross-sectional study design was adopted in this research because it would be able to yield results that are quantitative and can easily be analyzed to help answer the research questions and objectives in a short period of time. With the available funds, it was also prudent to choose this design because it was less expensive.

3.2 Data collection techniques and tools

Approval to conduct study

A formal letter of introduction was given by Ensign College which was presented to the Central Administration of the University and this allowed access into the university and the research to be conducted after a briefing on the details of the research.

Tools/Materials

A structured self-administered questionnaire was used and it included three sections namely; a section assessing the stress levels of the students using the 10-item Perceived Stress Scale, a section assessing the time management practices of the students using the 18-item Time Management Questionnaire scale and a section on the socio-demographic information of the students. The academic performance was assessed using the grade point averages obtained by the students at the end of the first semester.

The 10-Item Perceived Stress Scale (PSS) developed by (Cohen 1994) which is one of the commonly used tools in assessing stress levels was adopted and found more appropriate in assessing the stress levels of the students in this study because it was used by(Amponsah & Owolabi 2011) at the same study site (UCC) and on the same target population which is the first years. It was designed to measure the degrees to which respondents found their lives unpredictable, uncontrollable and overloading (Cohen 1994)

Each item was scored on a 5 point scale from "never" as 0 to "very often" as 4 but the positive items which are questions 33,34,36 and 37 on the questionnaire were reverse scored from "very often" as 0 to "never" as 4. A higher score indicates more stress and the range of scores is from 0 to 40. For the purposes of descriptive analysis, scores ranging from 0-13 was considered as low stress level,14-26 as moderate stress levels and 27 to 40 as high stress levels (Amponsah & Owolabi 2011).

The Time Management Questionnaire scale developed by (Britton and Tesser, 2014) was used to assess the time management practices of the students and was found to be appropriate for this study because of its documented use on tertiary students in a University in Nigeria, West Africa (Olowookere et al. 2015) who are expected to have similar socio-demographic characteristics as

the students in University of Cape Coast. It assesses short range planning which has 7 items, time attitudes which has 6 items and long range planning which has 5 items. There was a total of 18 items of which each item was scored on a 5 point scale from "Never" as 1 to "Always" as 5 except for questions 19,21,22,24 and 27 on the questionnaire which was reverse scored from "Always" as 1 to "Never" as 5. A total range of scores for the general time management practices was from 18-90. For descriptive statistics purposes, scores from 58 and above was considered as good time management practice, 46 to 57 as moderate and 45 and below as bad(Al Khatib 2014)

The distribution of the questionnaires was done during the last 45 minutes of the last day of lectures after which students started their first semester examinations within some few days. The measurement of the stress levels and time management practices was done before the examinations which were a medium to ascertain the fact that those factors preceded the academic performance.

The GPA obtained at the end of the first semester was also categorized into low (0-1.99), moderate (2.00-2.99) and high (3.00-4.00) for descriptive purposes (Al Khatib 2014).

3.3 Study population

First year students especially the fresh students in the first semester were deemed to be appropriate for this study because it is known that they are highly susceptible to stress and poor time management practices compared to students of higher levels because the transition from adolescence to adulthood in the sense of taking charge and being responsible for their own academics and social lives without any serious supervision coupled with a different teaching and

learning style among other multiple factors brings a big toll on them and gets them confused on how to keep a balance.

Most studies around the globe suggest that stress among students offering courses that are science related and has practical involvement are high compared to students offering the humanities and has less practical involvement (Bam et al. 2014; Kumar & Bhukar 2013). With this background information, Computer Science and Sociology first year students were conveniently selected as the sample unit out of the close relationship with these two departments to aid in comparison.

3.4 Study variables

The outcome variable in this study was the academic performance of students using the GPA. The independent or predictor variables were stress levels, general time management practices, long range planning, short range planning and time attitudes.

Table 3.4a STUDY VARIABLES

Category	Variable	Scale of measurement
Outcome	GPA	Continuous/Categorical
Independent	Stress levels	Continuous/categorical
	General time management (GTM)	Continuous/Categorical
	Long range planning (LRP)	Continuous
	Short range planning (SRP)	Continuous
	Time Attitude (TA)	Continuous

3.5 Sampling

With an exploratory study as the background, all the first-year Computer Science and Sociology students were targeted during the last day of the revision week just few days before start of their

first semester examinations and those who gave their written consent to be part of the study were recruited.

3.6 Pre-testing

The developed questionnaire was pre-tested among Computer Science and Sociology students at the University of Ghana because it was expected that students at the University of Ghana would have similar socio-demographic background as students of the University of Cape Coast.

3.7 Data handling

The data collected in the form of self-administered questionnaires which was coded and numbered sequentially from one to prevent double entry of a particular questionnaire and the grade point averages provided by the school administration was entered into Microsoft excel 2010, data cleaning was done and transported to STATA version 14 where all the analysis was done. To ensure accurate data of the GPAs and any eventualities, each lecturer had one individual working at the school's administration, who is already involved in working on grade point averages of students to also keep the coding as well and double check the academic results provided. The cleaned data was also sent to my email and put on an external drive as a backup and the questionnaires are currently under lock and key.

3.8 Data analysis

The univariate analysis of the socio-demographic distribution of the sampled respondents was done by deriving frequency tables and a pie chart. The bivariate analysis of exploring the relationship between stress and academic performance and time management practices and

academic performance was done by performing pearson's correlational analysis and simple linear regression. Differences in the distribution of stress, time management practices and academic performance by gender and course of study were assessed by performing the student t-test.

Differences in the distribution of stress, time management practices and academic performance by age groups were assessed by performing the one-way ANOVA analysis. Exploring the interaction between stress, time management practices and academic performance was done by performing a stepwise forward multiple linear regression and a post estimation test; Variation Inflation factor (VIF) was done to check for any possible multicollinearity of the chosen explanatory variables.

3.9 Ethical consideration

Ethical clearance

Ethical Clearance was given by the Ensign Ethics Review Board after going through the processes as seen at the appendix section.

Informed Consent

A written informed consent was sought from the participating students after the details of the study was explained to them in a language they understand and all questions answered satisfactorily as seen at the appendix section.

Privacy and Confidentiality

The lecturers of the two courses who were facilitators of this study had the class list coded confidentially by them and these codes were written on the questionnaires which helped them identify each particular student by that coded questionnaire. A participant information sheet and

consent form was added to each coded questionnaire to obtain written consent from the participant. The lecturers were the only ones who shared these questionnaires with the consent form since they were the only ones privy to the codes linking each and every student. To respect the right and freedom of participation of the students without feeling obliged to participate in the study because of the presence of their lecturer and his privy on the coding that can be traced back to them, the lecturer moved out of the lecture hall right after distributing the coded questionnaires to students and the filled questionnaires were dropped in a provided box and the lecturers were not involved in handling the filled questionnaires or even made to see the entered data since a provided information can be traced by the lecturers. At the release of the grade point average results of the first semester, the lecturers provided the GPAs corresponding to each code and not with a name or student's identification number.

Risks and Benefits

The risk and benefits associated with this study was duly explained to the respondents and had a written consent to that effect before participating in the study.

Data Safety and Storage

The data was entered into Microsoft excel 2010 on a password protected computer and the filled questionnaires are currently under lock and key for at least 2 years of which beyond this duration will be burnt.

Dissemination of results

The findings of this study will be disseminated through seminars, workshops and presentations to the University students, the lecturers and the counseling unit.

3.10 Limitations of study

The findings of this study should be limited to the following context.

Firstly, the lack of establishing temporality which is inherent in this cross-sectional design did not allow for conclusive results although this was in a way managed by assessing the stress and time management practices before the examinations which gave some strength to the evidence given.

Secondly, since the results of the stress levels and time management practices was obtained through a standard instrument by way of questionnaire and the possibility of students to give socially desirable responses given the lecture room setting they were in, it may not be entirely true and hence affect the accuracy of the stress level and time management practices measured.

Thirdly, the results of this study may not extend to all first-year students in the university of Cape Coast because the sample may not be representative and hence may limit the generalizability of the findings.

Fourthly, since the questionnaires were given to the students to fill on their own after a debrief in the lecture hall, some of the questions were left unanswered although they were encouraged to answer every question and this yielded some non-response (missing data) but this was managed to some extent by collecting enough data.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the findings of the research and is divided into two sections; section 4.1 describes the distribution of the various socio-demographic characteristics of the respondents that were sampled and section 4.2 presents the findings in relation to the specific objectives of this study. The summary of all the results would also be presented at the end of this chapter.

4.1 Socio-demographic characteristics

This section presents the distribution of the background characteristics of the respondents and the characteristics presented below include the age, sex, course of study, religion, parent's educational level, parent's economic status and the source of funding for education.

4.1.1 Age of respondents

From table 4.1a below, out of the 357 who responded, majority of them fall within the ages of 19-22 years whiles 9% and 11.8% fall below 18 years and above 23 years respectively.

4.1.2 Sex

Out of the 416 students sampled, 68.3 %(284) were males and 31.7 %(132) were females as shown in table 4.1a below

4.1.3 Course of study

Out of the 416 sampled, 83.9 %(349) studied sociology whiles 16.1 %(67) studied computer science as shown in table 4.1a below

4.1.4 Parents educational background

From table 4.1a below, majority of the fathers have tertiary education whiles majority of the mothers have high school education. Only 6.1% (25) of fathers and 8% (33) of mothers had no formal education. Again 9.9% (41) of fathers and 20% (82) of mothers had primary education.

4.1.5 Parents economic status

From table 4.1a below, majority of the students rated their parents' economic status as moderate. Only 6.2% (25) and 8.7% (36) rated their fathers' and mothers' economic status as poor.

4.1.6 Source of funding for education

Most of the respondents have their education funded by their parents with 4.4% (18) on scholarship. In addition, 3.4% (14) fund their own education whiles 5.3% (22) have funding from other sources as shown in table 4.1a below.

Table 4.1a Socio-demographic characteristics of respondents

CATEGORY		FREQUENCY	PERCENTAGE
Age	18 and below	32	9
	19-22	282	79.3
	23 and above	42	11.7
	Total	**357**	**100**
Sex	Male	284	68.3
	Female	132	31.7
	Total	**416**	**100**
Course of Study	Computer science	67	16.1
	Sociology	349	83.9
	Total	**416**	**100**
Fathers Education	No School	25	6.1
	Primary	41	9.9
	High School	161	39.o
	Tertiary	186	45
	Total	**413**	**100**

Source: Fieldwork, 2017

Table 4.1a Socio-demographic characteristics (continued)

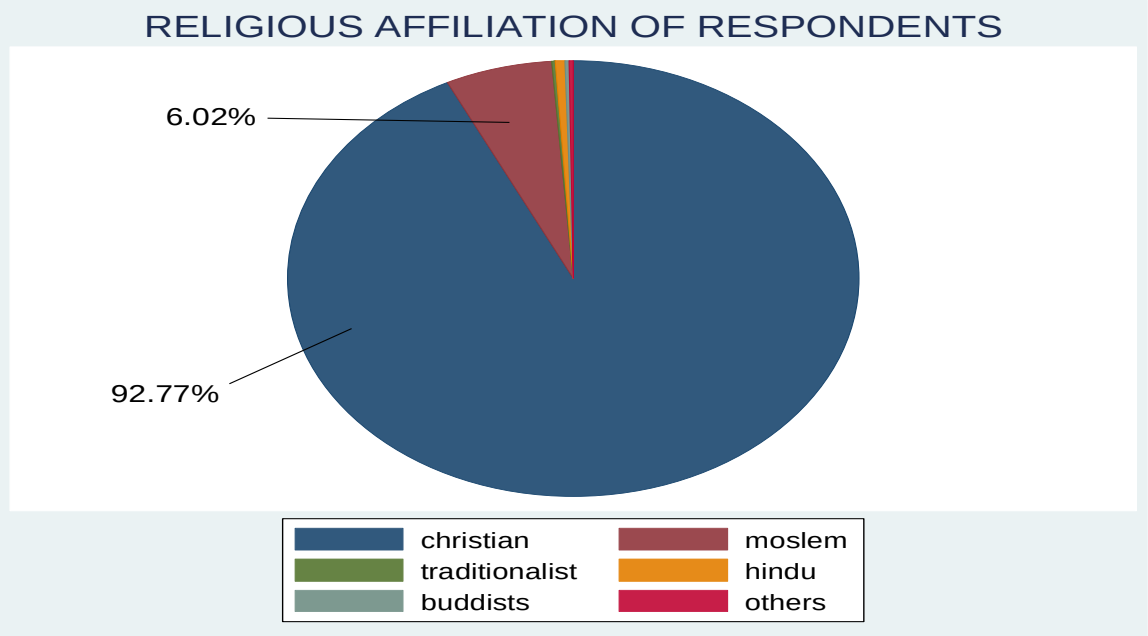
CATEGORY		FREQUENCY	PERCENTAGE
Mother's Educational Qualification	No School	33	8
	Primary	82	20
	High School	220	53.5
	Tertiary	76	18.5
	Total	**411**	**100**
Fathers Economic Status	Good	176	43.4
	Moderate	205	50.5
	Poor	25	6.2
	Total	**406**	**100**
Mother's Economic Status	Good	135	32.8
	Moderate	241	58.5
	Poor	36	8.74
	Total	**412**	**100**
Source of Funds	Parents	360	87
	Scholarship	18	4.4
	Self	14	3.4
	Others	22	5.3
	Total	**414**	**100**

Source: Fieldwork, 2017

4.1.7 Religion

From figure 4.1a, majority of the respondents profess the Christian faith with 6.0% (25) as Moslems. The rest 1.2% (5) have other religious affiliations.

Figure 4.1a Religious affiliations of respondents



Source: Fieldwork, 2017

4.2 Findings in relation to specific objectives

Tables are used in this section to present the findings in relation to specific objectives of this research.

4.2.1 GPA

Most of the respondents are average academic achievers with 19.5% (81) and 21.2% (88) as high and low academic achievers respectively.

Table 4.2a GPAof the respondents

GPA	frequency	Percentage	Average GPA	SD
Low	88	21.1	2.48	0.59
Moderate	247	59.4		
High	81	19.5		
Total	416	100		

Source: Fieldwork, 2017

4.2.2 Stress levels

Majority of the respondents experience moderate stress whiles 10.7% (44) experience severe stress. Additionally, 12.6% (52) have low stress levels as shown in table 4.2b

Table 4.2b Stress levels of the respondents

Stress	Frequency	Percentage
Low	52	12.6
Moderate	316	76.7
Severe	44	10.7
Total	412	100

Source: Fieldwork, 2017

4.2.3 General time management practices

From table 4.2c, majority of the students have excellent time management practices, whiles 37.5% (156) and 5.8% (24) have average and low time management practices respectively.

Table 4.2c Time management practices of the respondents

GTM	Frequency	Percentage
Low	24	5.8
Moderate	156	37.5
High	236	56.7
Total	416	100

Source: Fieldwork, 2017

4.2.4 Differences in distribution of stress, time management practices and academic performance by gender and course.

From table 4.2d below, the male students experienced less stress (mean=19.84, SD=5.22) compared to the females (mean= 20.51, SD=5.52) but this difference in stress levels was not significant (p-value=0.25 at 0.05 significance level).The sociology students reported more stress (mean= 20.13, SD=5.30) than the computer science students (mean= 19.63, SD=5.47) but there was no significant difference (p-value=0.49 at 0.05 significance level).

From the t-test result output below (table 4.2d), time management practices including all the sub scales (short range planning, long range planning and time attitudes) were high among the female students compared to their male counterparts but there was no significant difference in time management practices between both genders.

General time management and time attitudes skills were higher among the Computer Science students whereas the long-range planning and short range planning subscales had higher scores among the Sociology students. There was no significant difference in time management practices between the two courses. With academic performance, the males were performing better (mean= 2.50, SD=0.57) than the females (mean=2.42, SD=0.62) but this performance was not significantly different in terms of gender.

Table 4.2d t-test results of differences in stress, time management practices and academic performance by gender and course of study

VARIABLE	GROUPS		N	MEAN	SD	P -VALUE
stress	sex	male	282	19.84	5.22	0.25
		female	130	20.51	5.52	
	course	Computer science	67	19.63	5.47	0.49
		Sociology	345	20.13	5.30	
General time Management (GTM)	sex	male	284	58.82	8.83	0.65
		female	132	59.23	8.48	
	course	Computer science	67	59.13	8.38	0.85
		Sociology	349	58.95	8.79	
Short range planning (SRP)	sex	male	284	22.5	5.14	0.68
		female	132	22.72	4.89	
	course	Computer science	67	22.43	4.86	0.80
		sociology	349	22.60	5.10	

* P- value at 0.05 significance

Source: Fieldwork, 2017

Table 4.2d t-test results of differences in stress, time management practices and academic performance by gender and course of study (continued)

Long range planning (LRP)	sex	male	283	17.34	3.01	0.71
		female	131	17.45	2.74	
	course	Computer science	67	17.30	2.67	0.80
		Sociology	347	17.39	2.97	
Time attitude (TA)	sex	male	284	19.05	3.28	0.87
		female	132	19.10	3.02	
	course	Computer science	67	19.21	2.89	0.66
		sociology	349	19.03	3.25	
Academic performance	sex	male	284	2.50	0.57	0.21
		female	132	2.42	0.62	

Source: Fieldwork, 2017

4.2.5 Differences in distribution of stress and time management practices by age groups

The mean stress levels among the different age groups;18 years and below,19-22 years and 23 years and above, which was at moderate levels, were 20.78 (SD = 5.18), 20.05(SD=5.51) and 19.80 (SD=4.93) respectively. This shows a low stress in the higher age groups and a high stress in the lower age groups but this difference was not significant (p-value=0.72 at 0.05 significance) as shown in table 4.2e.

The general time management mean scores were 59.16 (SD=8.23), 58.87(SD= 8.67) 60.55(SD= 8.69) among the age groups; 18 years and below, 19-22 years and 23 years and above respectively. It was realized that the general time management skills were higher among the higher age group and lower among the younger age groups but this difference was not significant

(p-value=0.50). Generally, from table 4.2e below, the time management practices were high among the higher age groups compared to the lower age groups for the rest of the time management sub scales (short range planning, time attitudes and long range planning) but there was no significant difference to that regard.

Table 4.2e t-test results of differences in stress and time management by age

VARIABLE	GROUPS	N	mean	SD	P-VALUE
stress	Below 18years	32	20.78	5.18	0.72
	19-22years	281	20.05	5.51	
	23years and above	41	19.80	4.93	
General time management (GTM)	Below 18years	32	59.16	8.23	0.50
	19-22years	283	58.87	8.67	
	23years and above	42	60.55	8.69	
Long range planning (LRP)	Below 18years	32	17.41	2.59	0.67
	19-22years	281	17.47	2.79	
	23years and above	42	17.05	3.46	
Short range planning (SRP)	Below 18years	32	22.75	5.29	0.14
	19-22years	283	22.42	4.82	
	23years and above	42	24.05	5.34	
Time attitude (TA)	Below 18years	32	18.59	2.45	0.53
	19-22years	283	19.10	3.26	
	23years and above	42	19.45	3.59	

P value < 0.05 significance level

Source: Fieldwork, 2017

4.2.6 Academic performance by course

Generally, most of the students perform averagely, but the percentage of average academic performers offering computer science are more (65.7%,N=44) compared to sociology (58.2%,N=203). The percentage of high and low academic performers offering Sociology are 20.1%(N=70) and 21.8%(N=76) respectively and this is more than their counterpart offering computer science which is 16.4%(N=11) and 17.9%(N=12) respectively.

Table 4.2f Academic performance by course of study

	low		moderate		high		total	
	N	%	N	%	N	%	N	%
Computer science	12	17.9	44	65.7	11	16.4	67	100
sociology	76	21.8	203	58.2	70	20.1	349	100

Source: Fieldwork, 2017

4.2.7 Relationship between GPA and stress

The Pearson's coefficient obtained between GPA and stress from table 4.2g shows a significant but weak linear negative relationship of (Pearson's coefficient= -0.136, p value=0.01 at 0.05 significance level). This relationship is further made clearer by the simple linear regression module in table 4.2h which shows a coefficient of -0.0146 implying a negative effect. In the regression module, stress is significant (p value= 0.01) in predicting GPA and explains 1.9% of the variability in GPA.

4.2.8 Relationship between GPA and time management practices

From table 4.2g below, long range planning was the only sub scale that had a significant but weak linear positive relationship (Pearson's coefficient=0.143, p value<0.01 at 0.05 significant level) with GPA. General time management and time attitude skills both had a weak linear

positive relationship with the GPA, with Pearson's coefficients of 0.0759(p value=0.12) and 0.0715 (p value=0.15) respectively but was not significant. In addition, short range planning sub scale had a Pearson's coefficient of -0.028 (p value=0.57), indicating a weak linear negative correlation with GPA but was not significant as well.

This finding is buttressed by the simple regression output in table 4.2h, where long range planning was the only variable among the time management subscales that significantly predicts GPA (p value<0.01) and explains 2.1% of variability in GPA. The positive coefficient of 0.0287 also indicates a positive effect as stated earlier. General time management (p-value=0.12), short range planning (p-value=0.57) and time attitudes (p-value=0.15) were all not significant predictors.

Table 4.2g Correlation results between GPA, stress and time management practices

	GPA	SRP	TA	LRP	GTM	STRESS
GPA	1					
Short range planning (SRP)	-0.0277 p-value=0.57	1				
Time attitude (TA)	0.0715 p-value=0.15	0.3524* p-value<0.01	1			
Long range planning (LRP)	0.1433* p-value<0.01	0.3719* p-value<0.01	0.3522* p-value<0.01	1		
General time management (GTM)	0.0759 p-value=0.12	0.8438* p-value<0.01	0.6895* p-value<0.01	0.6901* p-value<0.01	1	
STRESS	-0.1362* p-value=0.01	-0.1223* p-value=0.01	-0.3232* p-value<0.01	-0.1940* p-value<0.01	-0.2568* p-value<0.01	1

*P< 0.05 significance, two tailed test

Source: Fieldwork, 2017

Table 4.2h Simple linear regression output of stress on GPA and the subscales of time management on GPA

	COEFFICIENT	STANDARD ERROR	t	P-VALUE	R-SQUARED
STRESS	-0.0146	0.0052	-2.78	0.01	0.0186
CONSTANT	2.7845	0.1087	25.61		
General time management (GTM)	0.0051	0.0033	1.55	0.12	0.0058
CONSTANT	2.1777	0.1965	11.08		
Time attitude (TA)	0.0131	0.009	1.46	0.15	0.0051
CONSTANT	2.2284	0.1738	12.82		
Short range planning (SRP)	-0.0032	0.0057	-0.56	0.57	0.0008
CONSTANT	2.5509	0.1317	19.37		
Long range planning (LRP)	0.0287	0.0098	2.94	<0.01	0.0205
CONSTANT	1.9838	0.1719	11.54		

Source: Fieldwork, 2017

4.2.9 Interaction between stress, time management practices and academic performance

Table 4.2i below, shows the outcomes of the various steps in the stepwise forward multiple linear regression. With GPA as the response variable, long range planning, a sub scale of the

time management practice, was the first to be added to the equation because it is the variable with the highest significant correlation coefficient (0.1433, p-value<0.01) with GPA (from table 4.2g) and also explains the highest variability (2.1%) in GPA alone(from table 4.2h). Stress was the next variable to be added in step two because it was the only variable among the rest of the explanatory variables that added significantly(p-value=0.02) to the adjusted R-squared (coefficient of determination) which is an additional 0.9%, explaining 2.7% of the variability in GPA by the two variables combined. In step three, short range planning, another sub scale of the time management practice was added since it is the only variable that significantly (p-value=0.03) added to the coefficient of determination among the rest of the explanatory variables (1%). The stepwise regression was stopped at step 3, because none of the remaining explanatory variables (general time management and time attitude) added significantly to the model.

So from the derived module below, 3.7% of GPA is explained by the three variables (long range planning, stress and short range planning) with long range planning being the highest significant predictor with a standardized coefficient of 0.160 (p-value<0.01) followed by stress with 0.120 (p-value=0.02) and short range planning with 0.117 (p-value=0.03) as shown in table 4.2j below.

The post estimation analysis result below (table 4.2k) for the final module to check for multi collinearity had the individual variable variance inflation factors (VIF) and mean variation inflation factor to be less than 5, hence confirming that collinearity is not an issue among the explanatory variables.

Table 4.2i steps in the stepwise forward regression

	P-VALUE OF ADDED VARIABLE	R SQUARED	ADJUSTED R SQUARED	ADJUSTED R SQUARE CHANGE

STEP 1	<0.01	0.0205	0.0182	0.0182
STEP 2	0.02	0.0318	0.0271	0.0089
STEP 3	0.03	0.0436	0.0366	0.0095

*P value< 0.05 significance

Source: Fieldwork, 2017

Table 4.2j Final module after stepwise regression

	NON-STANDARDIZED COEFFICIENT	STANDARD ERROR	t	P-VALUE	STANDARDIZED COEEFICIENT
Long range planning (LRP)	0.0312	0.0103	3.02	<0.01	0.1599
STRESS	-0.0128	0.0053	-2.42	0.02	0.1196
Short range planning (SRP)	-0.0132	0.0059	-2.24	0.03	0.1173
CONSTANT	2.5039	0.2292	10.93		

*P value< 0.05 significance

Source: Fieldwork, 2017

Table 4.2k Post estimation results (VIF)

VARIABLE	VIF	TOLERANCE(1/VIF)
Long range planning (LRP)	1.19	0.839
Short range planning (SRP)	1.17	0.858
STRESS	1.04	0.959
MEAN VIF	1.13	

Source: Fieldwork, 2017

4.2.10 Summary of results

The summary of the results will present only important findings from the earlier result section and this is as follows:

Majority of the respondents were moderately stressed with 10.7% and 12.6% severely and mildly stressed. Majority had good time management practices with 37.5% and 5.8% having moderate

and bad time management practices. There was no significant difference in the distribution of stress, time management practices and academic performance by age, gender and course of study.

There was a significant weak linear negative correlation (-0.136, p-value=0.01) between stress and academic performance and a significant weak linear positive correlation (0.143, p-value<0.01) between long range planning and academic performance and rest of the time management scales were not significant. Long range planning(p-value<0.01), stress levels(p-value=0.02) and short range planning(p-value=0.03) were significant in predicting GPA after a stepwise forward multiple linear regression with long range planning having the most predictive power with standardized coefficient (beta value) of 0.1599 followed by stress level (0.1196) and then short range planning (0.1173). Short range planning had a negative unstandardized coefficient (-0.0132) in the final module showing a negative effect with GPA.

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter discusses the results presented in chapter four by interpreting it and putting it into perspective and in comparison, with similar work in Ghana and other parts of the world. The various sections in this chapter discuss the age characteristics of the respondents, the stress levels, the time management practices, the differences in stress, time management practices and academic performance by gender, age and course of study, the relationship between stress and academic performance, the relationship between time management practices and academic performance and the possible interaction between stress, time management and academic performance.

5.1 Age characteristics of the respondents

The age distribution of the respondents was typical of the expected age range (19-22 years) of first year students in tertiary institutions in Ghana. With the current typical educational system in Ghana, basic education is 9 years and senior high school is 3 years, hence students are expected to enter the university at the age of 18 years. Anticipating a year's delay say due to admission problems, the expected age range will be 19-22 years. The ages of the majority (79.3%) of respondents fell within this range. This finding was similar to that of (Amponsah & Owolabi 2011) who conducted a research on stress among first year educational psychology students of the same institution in Ghana.

5.2 Stress levels

First year students are known to be more prone to stress than their higher level counterparts (World health Organisation, 1994; Stallman, 2010). In this study, this was evident by the 76.7% of the respondents reporting moderate stress levels and 10.7% reporting severe stress levels. In addition, it falls in line with (Pierceall, E. A., Kim 2007) report of 75-80% of college students been moderately stressed and 10-12% been severely stressed. This finding also agrees with (Nerdrum P, Rustøen T 2006; Bayram & Bilgel 2008) who reported high stress levels in first year university students. The same stress tool used by (Amponsah & Owolabi 2011) in the same institution 6 years ago yielded similar results in terms of reported moderate stress levels by the students (70.4%) but not for severe stress levels which was lower (3.5%). These findings suggest a challenge, in that, the stress levels among these students is on the higher side and cannot be taken for granted and even those who reported with severe stress levels in this study although not conclusive, are advised to seek counseling. The adopted stress tool used in this study cannot determine the sources/causes of stress among these students and further research focusing on this aspect would go a long way to inform on stress management seminars and how to deal with stress among this group of students. For example, academic stress from course overload may be tackled by proper and feasible course scheduling for the students by the academic board and those emanating from social relationships could be tackled by the counseling unit. Furthermore, stress coping strategies could also be another area to be looked at to help have a clearer and deeper understanding of stress among this group to inform on stress management.

5.3 Stress differences by gender, age and course of study

This current study found no significant difference (p value=0.25) in stress levels between both genders although the mean stress levels of the females (20.51) were higher than the males (19.84). This did not support the findings of (Amponsah & Owolabi 2011) who reported a significant difference with females reporting higher stress levels (18.11) than males(16.67) in the same institution with the same tool among first year students six years ago. Several factors may account for this difference in results during the past six years of which one of them may be the fact that female students of the institution are developing better stress coping strategies and hence bridging the gap between them and their male counterparts. Therefore, a further look into this in future researches would yield some form of explanation and probably a more qualitative approach may be employed since this current quantitative study is limited in getting detailed information on such. The results of this current research also did not support other findings around the globe where there was a significant higher stress level been reported among the females than the males(Kumar & Bhukar 2013; Bam et al. 2014; Dušan V. Backović1, Jelena Ilić Živojinović1 2012) although on the contrary (Sitz, E.H., Poche 2006; Taylor 2000) rather found the males to be more stressed than females.

Although this current study had the higher age group (more than 23 years) reporting less stress than the lower age group (less than 18 years), the difference was not significant (p-value= 0.72) which is consistent with the findings of (Amponsah & Owolabi 2011) in the same institution with the same tool six years ago and others (Aldwin, C.M., Sutton, K. J., Chiara, G., Spiro 1996). A study done in Ghana among nursing students (Bam et al. 2014) and some others around the globe (Bayram & Bilgel 2008; Brody, L.R., Hall 1993) found significant differences.

The findings of this current study suggest that age is not a predictor of stress levels of first year UCC students.

Although previous research findings found course/programme of study to have effect on the stress levels of the students (Azila-gbettor et al. 2015; Bam et al. 2014) the findings in this study were not significant. This may probably be due to the fact that this study was done on fresh students in their first semester and probably they may not have had enough time with course work in a semester to exert significant difference in stress levels. It has been suggested in other studies that course of studies that were associated with increased practical work exerted more stress on students (Kumar & Bhukar 2013). With this background, it was anticipated that Computer Science students would be more stressed than their Sociology counterparts. Future studies may consider conducting it at the end of the first year programme which would have allowed enough course work to explore if there would be a difference in the stress levels due to the course of study. For effective comparison in future studies, other courses apart from Computer science and Sociology where one has a practical involvement should be explored.

5.4 Relationship between stress and academic performance

A significant negative correlation was found between stress and academic performance. Stress was found to significantly predict academic performance (GPA). In this context, it means that low stress levels will result in high academic performance and vice versa and this finding is very consistent with most of the research results around the globe (Russell, Richard K.; Petrie, 1992; Pritchard and Wilson, 2016) although a study done in Ghana at the Ho polytechnic (Azila-gbettor et al. 2015) and (Rafidah et al. 2009) had no significant results. Although the variability in GPA explained by stress alone is 1.9% (table 4.2g) and looks small, it is much important in

predicting GPA and hence needs to be managed and cannot be taken for granted amongst other factors. A limitation in the interpretation of this finding is inherent in the cross-sectional design adopted in this study. A temporal association could not be established and it cannot be conclusive that stress is a possible factor in low GPAs. It is reasonable to suppose that low-GPA obtaining students generally tend to be more stressed. The fact that in this study, the questionnaires were administered before the exam which GPA scores were used in the analysis nevertheless adds to the strength of the evidence presented here. The students' affairs and counseling services at the school may consider a longitudinal study to conclusively examine this hypothesis.

5.5 Time management practices

Interestingly, most of the students (56.7%) had good general time management practices with only 5.8% having bad general time management practices. This finding was revealing because students are known to struggle in maintaining good time management practices and most findings around the globe reported moderate time management practices with them advocating for training and lessons in time management (PEHLİVAN, 2013; Al Khatib, 2014). This contrast may probably stem from the effect of social desirability as one of possible reasons, other time management measuring tools for example a 25 item scale used by (Tanrıöğen & Işcan 2009) could be used in further studies to help compare the results. One other possibility may be the fact that the students have been receiving some time management coaching or seminars that has generally improved their time management skills. This reason among other details may be revealed through a qualitative research approach in further studies.

5.6 Differences in time management practices by gender and age

The findings of this research showed a general higher average in time management practices among females than males but this results was not significant which is consistent with the findings of (PEHLİVAN 2013) except for the long range planning sub scale results which was significant in terms of gender difference.(Misra & McKean 2000; Al Khatib 2014) rather reported significant findings.

Age on the other hand, also didn't have any influence on time management practices since there was no significant difference but (Trueman, M. & Hartley 1996) had significant results where the older age group had higher time management skills than the younger age groups. Since majority of the respondents in this study reported high time management skills, it is not surprising that there was not much significant difference in the time management by gender and age and as has been discussed earlier, further studies with different time management measuring tools and some qualitative approach will bring much clarity.

5.7 Relationship between time management practices and academic performance

Long range planning was the only significant time management sub scale having a positive relationship with GPA. Long range planning was significant in predicting the GPA of the students and explained 2.1% of the variability in GPA. Meaning that, the more the student plans for the whole quarter or semester and makes effort to stick to it and monitor it, the better the academic performance (GPA) in addition to other factors. The other time management scales were not significant in predicting GPA. This finding is consistent with (PEHLİVAN 2013) results where long range planning was significant in predicting the grade points of financial students in Turkey in addition to short range planning but was rather not significant in this study.

(Al Khatib 2014) on the other hand, found a significant relationship and predictive power for general time management but not for the three sub scales of time management in a study also done in Turkey. This implies that, students should concentrate more on long range planning than the other sub scales (time attitudes and short range planning) if they want to obtain or achieve high GPA's.

5.8 Academic performance and gender

The findings of the meta-analysis done by (Voyer et al. 2014) was contrary to the findings of this current study where the males had a higher average GPA of 2.50 compared to the females (2.42) but was not significant. Hence in this study, gender had no effect on academic performance. This could be from the aspect of level of evidence, where this current study lacks statistical power compared to the meta-analysis study which is a pull of numerous evidences around the world.

5.9 Interaction between stress, time management practices and academic performance

Long range planning had the most predictive power for GPA followed by stress levels and subsequently short range planning as seen in the stepwise forward multiple regression output in table 4.2i. In the final module, after the stepwise forward regression, short range planning was found to be significant in predicting GPA and had a negative unstandardized coefficient of -0.013 although was not significant at the bivariate level of analysis as has been already discussed above. The negative coefficient of the short range planning variable and its attainment of significance at the multivariate stage of analysis intuitively may not make sense, since time

management sub scale practices are expected to have a positive effect on GPA, as in the higher the scores of any of the sub scales, the higher the GPA. But to put this result in context, it means less emphasis on short range planning which includes planning for the day and the immediate weeks and more emphasis on long range planning which includes planning for the whole quarter or semester and sticking to it and monitoring it and less stress levels will result in a better GPA amongst other factors since it is not only these three factors that affect GPA, hence collectively explaining 3.7 % of the variability in GPA. So therefore the interpretation for the no significant results for short range planning during the bivariate analysis (regression of SRP on GPA) but rather the attainment of significance at the multivariate level (stepwise regression of LRP, Stress and SRP on GPA) is that, a student who practices less of short range planning alone would not be able to better the GPA unless in addition has good long range planning and is less stressed. (PEHLİVAN 2013) also had a similar module to this study but rather input all the scales of time management practices at the same time during the regression analysis other than a forward stepwise approach adopted in this study. These findings are different from that of (Al Khatib 2014) who also used the same explanatory variables (stress, GTM, LRP, SRP, TA) and did a similar analysis (stepwise regression) as this study but reported general time management as the most significant predictor followed by stress and with all the time management sub scales not been significant.

Britton and Tesser (2014) argued the point that short range planning and long range planning sub scales are affected by the complexity of the environment of activities. In that, a stable environment of activities where for example assignments, interim assessments, class tests and project works are well planned and the schedule does not change that much, it is not complex enough and a long range planner will excel in such an environment but one that is complex and

turbulent and has assignments and interim assessment schedules changing with changing demands from lecturers and instructors will favor the short range planners and in such environments, long range planning is not sensitive. This may explain the significant impact by long range planning in this study, since GPA is computed for whole semester and hence long range planners benefiting than short range planners. In view of this finding, further research could look at the effect of stress and time management practices on other measures of academic performance such as class tests, interim assessments, and cumulative grade points averages, graduating honors or division and so on. This will help in a clearer understanding of the various sensitivities of the sub scales of time management because it is likely that short range planners will do well in class test and interim assessments since they are conducted some few times within the semester.

Other factors affecting GPA other than time management and stress could also be studied in future.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

This study was to measure and describe the stress levels and time management practices of first year students in UCC and explore the effect of these two factors on their academic performance. It was found that majority (76.7%) of the first year students are moderately stressed with 10.68% and 12.62% reporting severe and mild stress levels respectively, hence buttressing the point that, first year university students are stressed.

The majority (56.73%) of students exhibited good time management practices. Only 5.7% of students exhibited bad time management practices. Students with high stress levels tended to have low GPAs. Students exhibiting LRP were more likely to have higher GPAs. Lower stress levels, good long range planning and less short range planning are significant in obtaining a better GPA with long range planning having the highest impact followed by stress levels and subsequently short range planning.

6.2 Recommendations

Based on the findings from this research, the following recommendations are made;

- The counseling unit in UCC could consider organizing periodic seminars on stress management for students.
- Orientation sessions for freshmen could include sessions on stress management.
- Greater awareness could be generated at all levels of the university system about the possible impact of stress on academic performance.

- Student stress mitigation measures could be factored into academic programming at all levels.
- The establishment of more recreational facilities could be seen as an integral part to the attainment of good academic performance by students.
- A culture of Long Range Planning could be established and students encouraged to pursue it.

Further Research

Further research (preferably using qualitative approaches) may be conducted to better understand the sources of stress among these students. This study has added to the current body of literature on the relationship between stress, time management and academic performance. Most of the literatures have been derived from cross-sectional studies. The hypotheses thus appear quite well-established and justify the need for longitudinal studies to confirm the relationship between stress, time management and academic performance.

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APPENDICES

QUESTIONNAIRE

TOPIC : EXPLORING THE EFFECT OF STRESS AND TIME MANAGEMENT PRACTICES ON THE ACADEMIC PERFORMANCE OF FIRST YEAR STUDENTS IN A TERTIARY INSTITUTION IN GHANA.

INSTRUCTIONS : TICK or CIRCLE your choice(s) from the options given. Supply the answer where options are not provided to choose from. If you are not sure of the answer, please choose the answer that is best close to the truth about you.

QUESTIONNAIRE NUMBER:……

SECTION A- SOCIO-DEMOGRAPHIC INFORMATION

			FOR OFFICIAL PURPOSES ONLY	
			SCORE	**CODE**
1	AGE	____ YEARS		AGE
2	SEX	1. MALE 2. FEMALE		SEX
3	COURSE OF STUDY	1. COMPUTER SCIENCE 2. SOCIOLOGY		COURS
4	NATIONALITY	1. GHANA IAN 2. NON-GHANAIAN PLEASE SPECIFY ……		NAT
5	ETHNICITY	1. AKAN 2. EWE 3. GA 4. OTHERS (GHANAIAN)…… 5. OTHERS (NON-GHANAIAN) ……		ETHN
6	RELIGION	1. CHRISTIAN 2. MOSLEM 3. TRADITIONALIST 4. HINDU 5. BUDDISTS 6. OTHERS ……		RELI
7	FATHER'S EDUCATIONAL BACKGROUND	1. NO SCHOOL 2. PRIMARY 3. HIGH SCHOOL 4. TERTIARY		FATH_EDU
8	MOTHER'S EDUCATIONAL BACKGROUND	1. NO SCHOOL 2. PRIMARY 3. HIGH SCHOOL 4. TERTIARY		MOTH_EDU

9	FATHER'S ECONOMIC STATUS	1. GOOD 2. MODERATE 3. POOR		FATH_ECON
10	MOTHER'S ECONOMIC STATUS	1. GOOD 2. MODERATE 3. POOR		MOTH_ECON
11	SOURCE OF FUNDING FOR EDUCATION	1. PARENTS 2. SCHOLARSHIP 3. SELF 4. OTHERS ……		SCH_FEES

SECTION B - TIME MANAGEMENT BEHAVIOUR
SHORT-RANGE PLANNING

			FOR OFFICIAL PURPOSES ONLY	
			SCORE	**CODE**
12	Do you make a list of the things you have to do each day?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.12
13	Do you plan your day before you start it?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.13
14	Do you make a schedule of the activities you have to do on every day?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.14
15	Do you write a set of goals for yourself for each day?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.15
16	Do you spend time each day planning?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.16
17	Do you have a clear idea of what you want to accomplish during the next week?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.17

18	Do you set and honour priorities?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.18

TIME ATTITUDES

			FOR OFFICIAL PURPOSES ONLY	
			SCORE	**CODE**
19	Do you often find yourself doing things which interfere with your school work simply because you hate to say "No" to people?*****	1. Always 2. Frequently 3. Sometimes 4. Infrequently 5. Never		Q.19
20	Do you feel you are in charge of your own time, by and large?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.20
21	On an average class day do you spend more time with personal grooming than doing school work?*****	1. Always 2. Frequently 3. Sometimes 4. Infrequently 5. Never		Q.21
22	Do you believe that there is room for improvement in the way you manage your time?*****	1. Always 2. Frequently 3. Sometimes 4. Infrequently 5. Never		Q.22
23	Do you make constructive use of your time?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.23
24	Do you continue unprofitable routines or activities?*****	1. Always 2. Frequently 3. Sometimes 4. Infrequently 5. Never		Q.24

LONG-RANGE PLANNING

			FOR OFFICIAL PURPOSES ONLY	
			SCORE	**CODE**
25	Do you usually keep your desk clear of everything other than what you are currently working on?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.25
26	Do you have a set of goals for the entire semester?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.26
27	The night before a major assignment is due, are you usually still working on it?*****	1. Always 2. Frequently 3. Sometimes 4. Infrequently 5. Never		Q.27
28	When you have several things to do, do you think it is best to do a little bit of work on each one?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.28
29	Do you regularly review your class notes, even when a test is not imminent?	1. Never 2. Infrequently 3. Sometimes 4. Frequently 5. Always		Q.29

SECTION C - STRESS

			FOR OFFICIAL PURPOSES ONLY	
			SCORE	**CODE**
30	In this semester, how often have you been upset because of something that happened unexpectedly?	0. Never 1. Almost Never 2. Sometimes 3. Fairly often 4. Very often		Q.30

31	In this semester, how often did you feel that you were unable to control the important things in your life?	0. Never 1. Almost Never 2. Sometimes 3. Fairly often 4. Very often		Q.31
32	In this semester, how often did you feel nervous and "stressed"?	0. Never 1. Almost Never 2. Sometimes 3. Fairly often 4. Very often		Q.32
33	In this semester, how often did you feel confident about your ability to handle your personal problems?*	0. Very Often 1. Fairly Often 2. Sometimes 3. Almost Never 4. Never		Q.33
34	In this semester, how often did you feel that things were going your way?*	0. Very Often 1. Fairly Often 2. Sometimes 3. Almost Never 4. Never		Q.34
35	In this semester, how often did you find that you could not cope with all the things that you had to do?	0. Never 1. Almost Never 2. Sometimes 3. Fairly often 4. Very often		Q.35
36	In this semester, how often were you able to control irritations in your life?*	0. Very Often 1. Fairly Often 2. Sometimes 3. Almost Never 4. Never		Q.36
37	In this semester , how often did you feel that you were on top of things?*	0. Very Often 1. Fairly Often 2. Sometimes 3. Almost Never 4. Never		Q.37
38	In this semester, how often were you angered because of things that were outside of your control?	0. Never 1. Almost Never 2. Sometimes 3. Fairly often 4. Very often		Q.38

39	In this semester, how often did you feel difficulties were piling up so high that you could not overcome them?	0. Never 1. Almost Never 2. Sometimes 3. Fairly often 4. Very often		Q.39

Part1.Participant Information

Introduction

I am from Ensign College of Public Health in Kpong. I am conducting a study that involves research into understanding the interactions between stress, time management and academic performance of university students of which UCC has been chosen as the study site. Your lecturer is a co-investigator in this research. I will be explaining all about the study to you. Please take all the time you need to read it carefully. You may ask me any questions about anything you do not understand at any time. You are a volunteer. You can choose not to take part and if you join, you may quit at any time. There will be no penalty if you decide to quit the study.

Why you are being asked to participate

You are being asked to take part in this study because you are a student in UCC. Specifically, I am interested in first year students of the institution and you offer the course that was randomly selected as part of the study and in all I plan to ask such people to participate in the study.

Procedures

If you agree to be part of the study, you will fill a structured questionnaire which will take you about 15 minutes to complete. Your GPA acquired for this semester will be obtained from the school administration with your consent but with no identifiers as explained in the confidentiality section below. Your responses will be entered into a computer database. As a participant, if you agree to participate in this study, data from your responses may be used as part of my exploration of the relationship between stress,time management practices and academic performance in first year university students of UCC.

Risk and Benefits

I anticipate minimal or no risk to you. There is no direct benefit to you for being in the study; however, study outcomes may lead to better ways of improving academic performance of students in UCC through better knowledge in understanding the effect of stress and time management practices on academic performance.

Confidentiality

The filled questionnaires will be dropped in a box provided and your lecturer would be out of the lecture hall as you fill the questionnaires and won't have access to them. Your GPA obtained at the end of the semester would be obtained without identifiers such as names or even index numbers but only with the corresponding codes on your questionnaire. Hence the reason for no names, date of birth, etc required on the questionnaire for anonymousity.When typing your survey responses into the computer, all data will be entered without any information that will make it possible for your identity to be known. The information you provide will be kept strictly confidential and will be available only to persons related to the study. (Myself and my supervisors) The Office of Ethical Review Board of Ensign College may also have access to study records upon their request. Your responses will not be shown to other participants or your lecturer or anyone in the school. The original paper survey forms will be destroyed once data entry is complete.

Voluntariness and Withdrawal
Your participation in the study is completely voluntary and you reserve the right not to participate, even after you have taken part, to withdraw. This is your right and the decision you take will not be disclosed to anyone. It will not affect your relationship with your lecturer although he is a co-investigator because he won't be part of the data entry and won't have access to the questionnaires after it has been filled. If you join the study, you can change your mind later. You can choose not to take part and you can quit at any time. There will be no negative consequences if you choose not to participate in the study. Please note however, that some of the information that may have been obtained from you without identifiers, before you chose to withdraw, may be used in analysis reports and publications.

Cost/Compensation
Your participation in this study will not lead to you incurring any monetary cost during or after the study.

Who to contact
This study has been approved by the Institutional Review Board of Ensign College. If you have any concern about the conduct of this study, your welfare or your rights as a research participant or if you wish to ask questions, or need further explanations later, you may contact me. Joseph Wesley Ansah (0244 50 38 54) of Ensign College of Public Health, or My supervisor Dr. Frank Baiden (0204591181) You may also contact the Adminitrator of the Institutional Ethics Committee of the Ensign College of Public Health at (+233245762229). Thank you.

Do you have any questions?

Part 2. CONSENT DECLARATION

"I have read the information given above, or the information above has been read to me. I have been given a chance to ask questions concerning this study; questions have been answered to my satisfaction. I now voluntarily agree to participate in this study knowing that I have the right to withdraw at any time without affecting future health care services"

Name of **participant** _____

Signature of **Participant** _____

Date: / / 2016

Left thumbprint of participant

Name of **witness** _____

Signature of **witness** _____

Date: / / 2016

Name of **investigator** JOSEPH WESLEY ANSAH

Signature of **investigator** _____

Date: / / 2016