

FACTORS CONTRIBUTING TO THE HIGH STRESS LEVEL AMONG
UNDERGRADUATE MEDICAL STUDENTS ATTENDING KAMAPALA
INTERNATIONAL UNIVERSITY - WESTERN CAMPUS

BY

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THIS REPORT HAS BEEN SUBMITTED TO THE FACULTY OF CLINICAL
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DECLARATION

I hereby declare that this research and its findings are my original work and have not been presented for academic award or qualification in any institution of higher learning. Appropriate referencing has been made where citation of other peoples work has been done. I take full responsibility for unintended typographic errors and /or any shortcoming that may be found in this dissertation.

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DR. KAMYUKA FREDRICK K

DEDICATIONS

To my family and friends who are helping me make my dream come true.

ACKNOWLEDGEMENT

First, I present my praise and thanksgiving to my Heavenly Father for His grace thus far.

Secondly, I would like to thank the administration of Kampala International University for their efforts directed towards the success of this exercise.

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Finally, I would like to acknowledge all my respondents for their cooperation

LIST OF ACRONYMS

op cit	<i>opera citato</i> -in the work already quoted
Ibid	<i>ibidem</i> - in the above quotations
et al	<i>et alii</i> -and others
e.g.	<i>Exemplia gratia</i> - for example
PTSD	Post-TraumaticStressDisorder

TABLE OF CONTENTS

Table of Contents

DECLARATION.....	2
DEDICATIONS	3
ACKNOWLEDGEMENT	4
LIST OF ACRONYMS	5
TABLE OF CONTENTS	6
CHAPTER ONE: INTRODUCTIONS	7
1.0 GENERAL INTRODUCTION	7
1.1 BACKGROUND	7
1.2 STATEMENT OF THE PROBLEM	8
1.3 JUSTIFICATION OF STUDY	8
1.4 RESEARCH OBJECTIVES.....	8
1.4.1 <i>Broad Objectives</i>	8
1.4.2 <i>Specific Objectives</i>	8
1.5 RESEARCH QUESTIONS.....	9
1.6 SCOPE OF THE STUDY	9
1.6.1 <i>Time Scope</i>	9
1.6.2 <i>Content Scope</i>	9
1.6.3 <i>Geographical Scope</i>	9
CHAPTER TWO: LITERATURE REVIEW	10
2.0 GENERAL INTRODUCTIONS.....	10
2.1 PREVIOUS LITERATURE	10
CHAPTER THREE: METHODOLOGY	13
3.0 GENERAL INTRODUCTIONS.....	13
3.1 STUDY AREA	13
3.2 STUDY DESIGN.....	13
3.3 STUDY POPULATION	13
3.4 SAMPLE SIZE DETERMINATION	13
3.5 DATA COLLECTION METHODS	14
3.6 INCLUSION AND EXCLUSION CRITERIA.....	14
3.6.1 <i>Inclusion Criteria</i>	14
3.6.2 <i>Exclusion Criteria</i>	14
3.7 DATA COLLECTION TOOLS.....	14
3.8 DATA ANALYSIS PLAN.....	14
3.9 DATA PRESENTATION PLAN	14
3.10 LIMITATIONS OF THE STUDY	14
3.11 ETHICAL CONSIDERATION	15
REFERENCES	25
APPENDIX I	27
APPENDIX II.....	28

CHAPTER ONE: INTRODUCTIONS

1.0 General Introduction

This chapter will introduce the reader to the basic information about the subject under study, the study area, the study objectives, justifications scopes, and describe briefly the concepts . A conceptual framework is hereby presented at the end of the chapter.

1.1 Background

Stress is generally defined as the body's nonspecific response or reaction to demands made on it, or to disturbing events in the environment . It is a process by which we perceive and cope with environmental threats and challenges (Myers D et.al, 2005).

Personal and environmental events that cause stress are known as stressors. Therefore, stress is simply defined as emotional disturbances or changes caused by stressors. Stress which promotes and facilitates learning is called good stress. An optimal level of stress can enhance learning ability (Kaplan H et.al, 2000)

On the other hand, stress which inhibits and suppresses learning is called bad stress. The bad stress must be prevented and avoided. It is noteworthy that the same stressors may be perceived differently by different students, depending on their cultural background, personality traits, experience and coping skills (Kaufman D et.al, 1998).

Carver et al. 1984 have proposed 16 dimensions of coping: five dimensions assess conceptually distinct aspects of problem-focused coping including active coping, planning, suppression of competing activities, restraint coping, seeking of instrumental social support; five dimensions assess aspects of what might be viewed as emotion-focused coping like seeking of emotional social support, positive reinterpretation, acceptance, denial, turning to religion); and six dimensions assess coping responses that are less useful focus on and venting of emotions like venting, behavioural disengagement, mental disengagement ,self-distraction, humour, substance use, self-blame.

These coping strategies if used effectively may buffer the unwanted impacts of stressful situation on physical, emotional and mental wellbeing (Park C et.al, 2003).

1.2 Statement of the Problem

Stress among medical students have been widely documented; with global prevalence reported in almost all continents.

In Uganda, limited information is available on the extent and factors contributing to the stress among students in higher institutions of learning including universities. In the contrary, the Ugandan national health sector strategic plan III recognises mental health as a countries health care priorities which demands an action at both institutional and policy framework to address it.

In effects to the above, many mental health projects has shown that stress continues to be a major health care challenge in the community as well as within the institutional levels. The mental health reports 2012 indicates that there were high incidences of stress among students.

Its against this background that this study has been designed to determine the factors that are contributing to stress among college students in Uganda.

1.3 Justification of Study

First of all the study report will be submitted to the faculty of clinical medicine and dentistry of Kampala International University as a requirement in partial fulfilment of the requirement for the award of bachelor of clinical medicine and bachelor of surgery of kamapala International University, 2014. Besides, the study will provide additional resources and reference for future researchers in the same areas of interest, and finally, the study results will be subjected to further evaluations to improve understandings about the situations of stress among college students in Uganda.

1.4 Research Objectives

1.4.1 Broad Objectives

To determine the major factors contributing to stress among medical students at Kampala International University

1.4.2 Specific Objectives

1. To determine the social factors contributing to stress among students at KIU western campus
2. To determine the physical factors contributing to stress among the students at KIU western campus

3. To describe the socio-demographic status of students experiencing stress in KIU western campus.

1.5 Research Questions

1. What are the social factors contributing to stress among the students at KIU western Uganda?
2. What are the physical factors contributing to stress among the students at KIU western campus?
3. What are the socio-demographic characteristics of stress students at KIU western campus?

1.6 Scope of the Study

1.6.1 Time Scope

The study shall be conducted between the months of September 2014 to October 2014. Detailed working schedules during this time scope is illustrated in appendix I (work schedule)

1.6.2 Content Scope

The study will concentrate in describing the physical, social factors contributing to stress among college students attending to the medical school at KIU western Campus and describe the socio-demographic data (age, gender, class and country of origin)

1.6.3 Geographical Scope

The study shall be conducted in Kampala International University, western Uganda, and the respondents shall include all medical students

CHAPTER TWO: LITERATURE REVIEW

2.0 General Introductions

In this chapter, the researcher has presented the reviews of previous literature from studies relevant and in line with this study, empirical analysis and comparative relations has been made in relevant studies.

2.1 Previous Literature

Psychological problems among student population varies from 2% to as high as 50%. At any given time if one randomly examines the student wellbeing one can find that every 10 students, one will have emotional conflicts severe enough to merit professional help (Farnsworth, 1997).

College students frequently have more complex problems today than they did over decade ago common stressors in college include greater academic demands, being on your own in a new environment, changes in family relations, changes in social life, exposure to new people ideas and temptations (Narasappa, 2013)

Some of the salient problems specific to college students are, time pressure, fear of failure, struggle to establish identity, pressure of academic excellence and tough competence. Emotional problems such as Feel inferior to others, not able to think properly, worrying too much, feel life is not worth living. Feel anxious without any apparent reason (op cit)

Many studies have revealed a negative association of stress with mental, emotional and physical morbidity (Aktekin M et.al, 2001). Chronic and excessive stress leads to physical, emotional and mental health problems, reduced self-esteem and affects students' academic achievement, personal and professional development (Niemi PM et.al, 1999).

It is noteworthy that over exposure stress causes physical, emotional and mental health problems (Niemi PM et.al, 1999). Therefore, early detection and intervention may prevent and minimize the exert effects of stress on the students in the future (op cit).

According to Folkman, coping strategies can be grouped into two general types; problem-focused and emotion-focused coping. Problem-focused coping is aimed at problem solving or doing something to alter the source of stress (Folkman et.al, 1980 & Lazarus et.al, 1984)

Emotion-focused coping is aimed at reducing or managing the emotional distress that is associated with the situation (ibid)

Although most stressors elicit both types of coping, problem-focused coping tends to predominate when people feel that something constructive can be done, whereas emotion-focused coping tends to predominate when people feel that something constructive can be done, whereas emotion-focused coping tends to predominate when people feel that the stressor is something that must be endured (ibid)

It is mentioned that tertiary education is highly stressful to students. Medical education is even more stressful as evidenced by high prevalence of stress among medical students, compared to other profession (Jeong 2010).

Although some degree of stress is a normal part of medical training and can be a motivator for some individuals, not all students find stress constructive for many individuals, stress arouses feelings of fear, incompetence, uselessness, anger, and guilt and can be associated with both psychological and physical morbidity. (Mosley TH jr. et.al, 1994).

Students use various coping mechanisms to process stress that vary by year in training and source of stress. The specific coping strategies that students use may determine the effect of stress on psychological and physical health.(Mosley TH jr. et.al, 1994) and may determine whether stress has a positive or negative influence.(Moffat KJ et .al, 2004).

Strategies that centre on disengagement, such as problem avoidance, wishful thinking, social withdrawal, and self-criticism, have negative consequences and correlate with depression, anxiety, and poor mental health. (Moffat KJ et .al, 2004)., In contrast, strategies that involve engagement, such as problem solving, positive re- interpretation, reliance on social support, and expression of emotion, enable students to respond in a manner that leads to adaptation.(Mosley TH jr. et.al, 1994),

Egyptian and Saudi medical students have almost the same rates of high stress, though anxiety and depression were significantly higher among the Egyptian students. Satisfactory family income and having a college-educated father were independent protective factors in both groups (El-Gilany AH et.al 2008)

Study of Firth in three British universities showed that the prevalence of stress was 31.2%(Firth J,1986). Study of Sherina et al showed that the prevalence of stress was 41.9% and 61.4% in a Malaysian and Thai medical school respectively. Medical school stress is likely to

predict later mental health problems, but students seldom seek help for their problems. Dahlin et al showed that the prevalence of depressive symptoms among Swedish students was 12.9% and a total of 2.7% of students had made suicidal attempts.

Medical students are predominantly suffers from stress during their undergraduate course as because of academic pressure, classicist criteria and tough nature of medical practice which requires involvement with human suffering, death, sexuality and fear (Abdulghani et al., 2011.). At many occasion stress lead to poor physical health, mental distress, reduce students' self-esteem and have a negative effect on cognitive functioning and learning of students in the medical school. Multiple researches reported that stress damages mental health. Therefore causes anxiety and depression in medical students not only in advance countries but also developing countries. Medical students are exposed to diverse varieties of stress. It is reported during undergraduate medical education stress is related to academic, financial and social. Sometime stress arises from compulsion to succeed and also in difficulties of integrating education system (Singh et al., 2010.). Researcher identified stress of medical students are mainly due to curricular overload but not due to personal difficulties (Kaufman et al., 1998). It is because of demanding, intense environment of medical education has created excessive pressure on medical students (Yusoff, 2013). There are number of reports available indicates that medical school's environment is not congenial and friendly to enhance psychological and physical health of students . It is less than 3% in any population suffers from psychiatric diseases. Similar figure also observed with medical students before taking admission in medical school (Yusoff et al., 2013)

However, psychological morbidity in medical students rises sharply to 21% to 56% (Yusoff and Rahim, 2011). There are reports that at the end of first year it is doubled which very alarming (Vitaliano et al., 1989.). Currently there are lot of discussions regarding stress of medical students because mental health ensures total health (WHO, 2003). Research reported three main areas of stress; academic pressures, social issues and financial problems (Vitaliano et al., 1989). A number studies emphasis on the quality of life of medical students which will ensure quality of medical education and henceforth better prescriber on basis of rational use of medicine for this earth (Vitaliano et al., 1989.).

Information on regarding stress of medical students is imperative as because therefore authority controls medical education can take necessary preventive measures for vulnerable future medical doctors (Nor Iza A Rahman et.al, 2013)

CHAPTER THREE: METHODOLOGY

3.0 General Introductions

In this chapter, the researcher has described the basic methods that was applied in this study; this describes the study area, design, populations and sampling methods to be used to be in this study.

3.1 Study Area

The study was carried out in Kampala international university – western campus

3.2 Study Design

This study was a cross-sectional study, descriptive in nature and was carried out between the month of September – October 2014

3.3 Study population

The study population included undergraduate medical students in Kampala international university – western campus

3.4 Sample Size Determination

The sample was calculated using the Keish and Leslie formula (1965) for calculating study sample size in cross sectional studies, estimated prevalence and 95% confidence limit.

$$n = \frac{z^2 PQ}{d^2}$$

n=sample size

Z=standard deviation (95%), standard value of 1.96

P=estimated proportion of students experiencing stress =18%, 0.18(Lauren Deborah Feld, 2011)

Q=1-p

D= margin of error of at 5%, level of accuracy (0.05)

$$n = \frac{1.96^2(0.18)(0.82)}{0.05^2}$$

N=226

3.5 Data Collection Methods

Purposive sampling was done for the medical students in Kampala international university – western campus

3.6 Inclusion and Exclusion Criteria

3.6.1 Inclusion Criteria

All medical students in Kampala international university – western campus, who had experienced or reportedly had any form of stress in the past one year were included.

3.6.2 Exclusion Criteria

Any student who had enrolled in Kampala International University but not pursuing a medical program was excluded

All respondents who did not consent to participate were excluded

3.7 Data Collection Tools

Questionnaires was administered to respondents to provided self-reported data on the factors that are contributing to stress

3.8 Data Analysis Plan

Data was analysed electronically using SPSS Version 16. The major dependent variables were compared against the major independent variables. Odd ratios and relative risk indices were used to rank factors significance and finally, t-test was used for bivariate and multivariate analysis. A chi-square test was used to test the study hypothesis.

3.9 Data Presentation Plan

Data generated in this study was presented in the form of graphs, charts, tables and descriptive statement

3.10 Limitations of the study

The major limitations in this study were lack of data on the prevalence of stress and its major contributing factors and the fact that some students were not willing to provide an up to date information on the factors contributing to stress at the university.

3.11 Ethical consideration

- Institute of Research and Ethics Committee's (IREC) approval was sought before the commencement of the study
- Permission was sought from the university administration before the commencement of the study
- Confidentiality between the respondent and researcher was respected.
- Respondents were not coerced.
- Respondents were encouraged to make informed decision.
- No respondent's vulnerability was exploited.

CHAPTER FOUR

4.0 RESEARCH FINDINGS

This chapter presents the results of the study of factors contributing to the high stress level among undergraduate medical students attending Kampala international university western Uganda

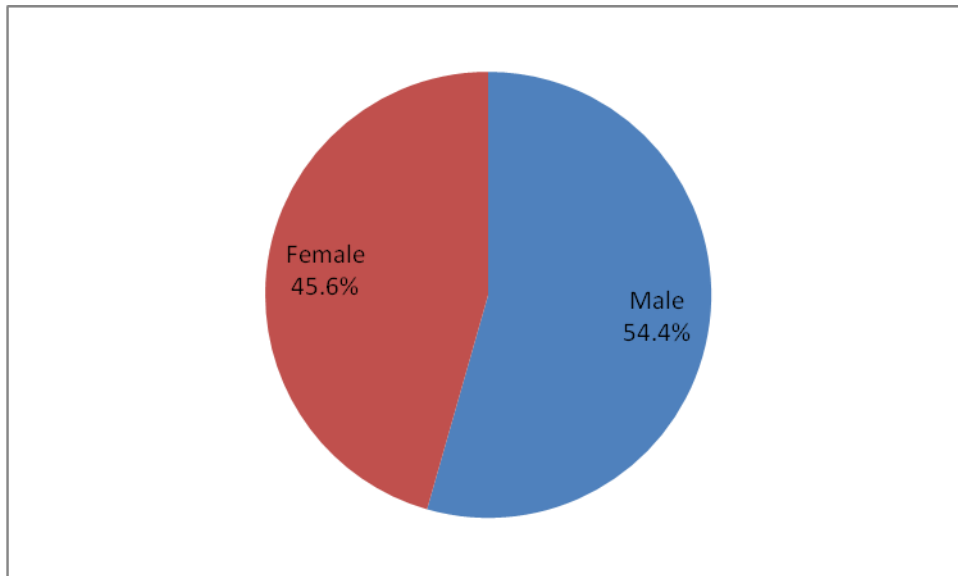
The research findings in this study were obtained from 226 respondents who were all medical students. The questionnaire was distributed among KIU medical student, with no discernment between the clinical years and those in their biomedical years

The respondents were given self-administered questionnaires and the findings were presented in the form of graphs, charts, tables and descriptive statements as follows.

4.1 Distribution of respondents by gender

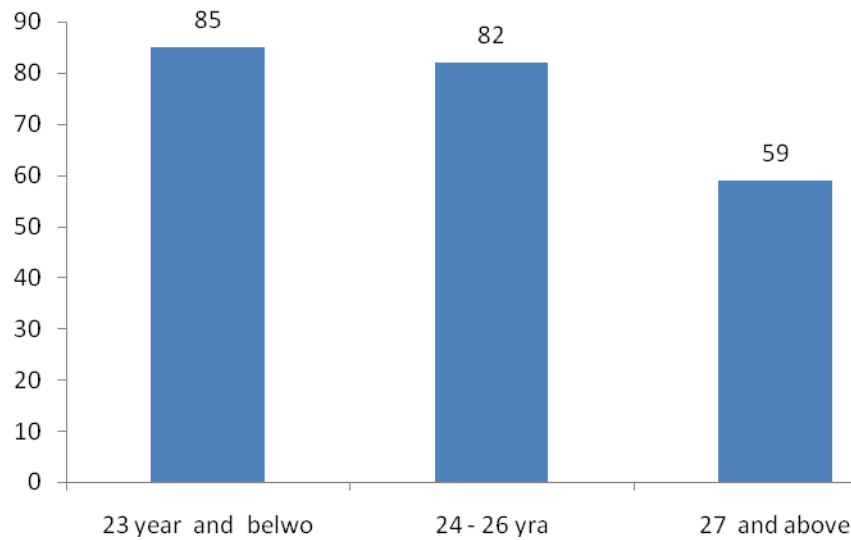
Of the 226 respondents 54.4% were male and 45.6% were female

Figure 1: gender distribution of respondents



4.2 Distribution of respondents by age

Figure 2: Age distribution of respondents



The figure above illustrate that 85 respondents (37.6%) where 23 years and below, 82 respondents (36.3%) where between 24 to 26 years and 59 respondents (26.1%) where 27 years and above

4.3 Average expenditure per day

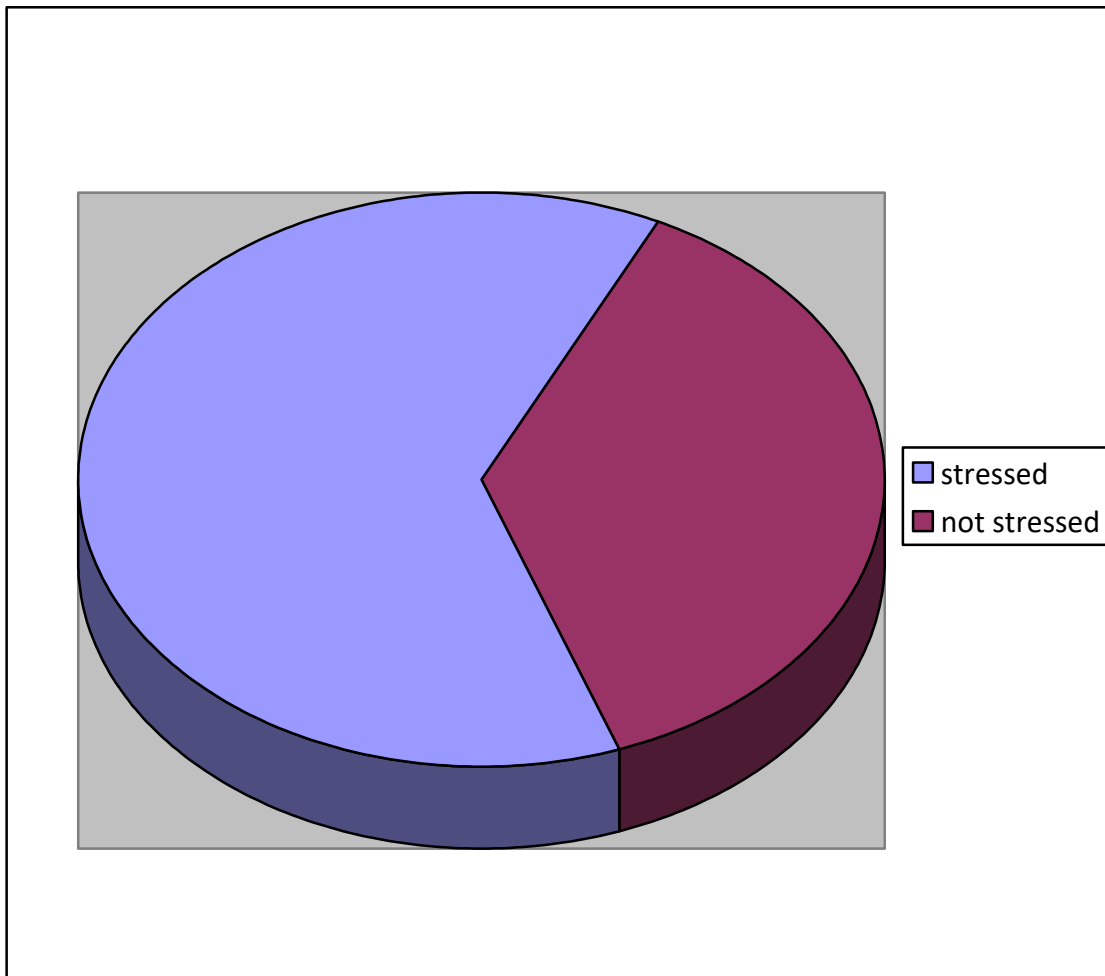
Table 1: average expenditure per day

Amount(Uganda shillings)	Frequency	Percentage (%)
5000 and below	54	23.9
5001 to 10000	89	39.4
10001to 30000	43	19
30001 and above	40	17.7

Table above illustrate that majority of respondents 39.4% send between 5001 to 10000 shillings per day, 23.9% spend 5000 and below,19% spend between 10001 to30000, while minority 17.7% spend 30001 and above per day

4.2 proportion of stressed medical students

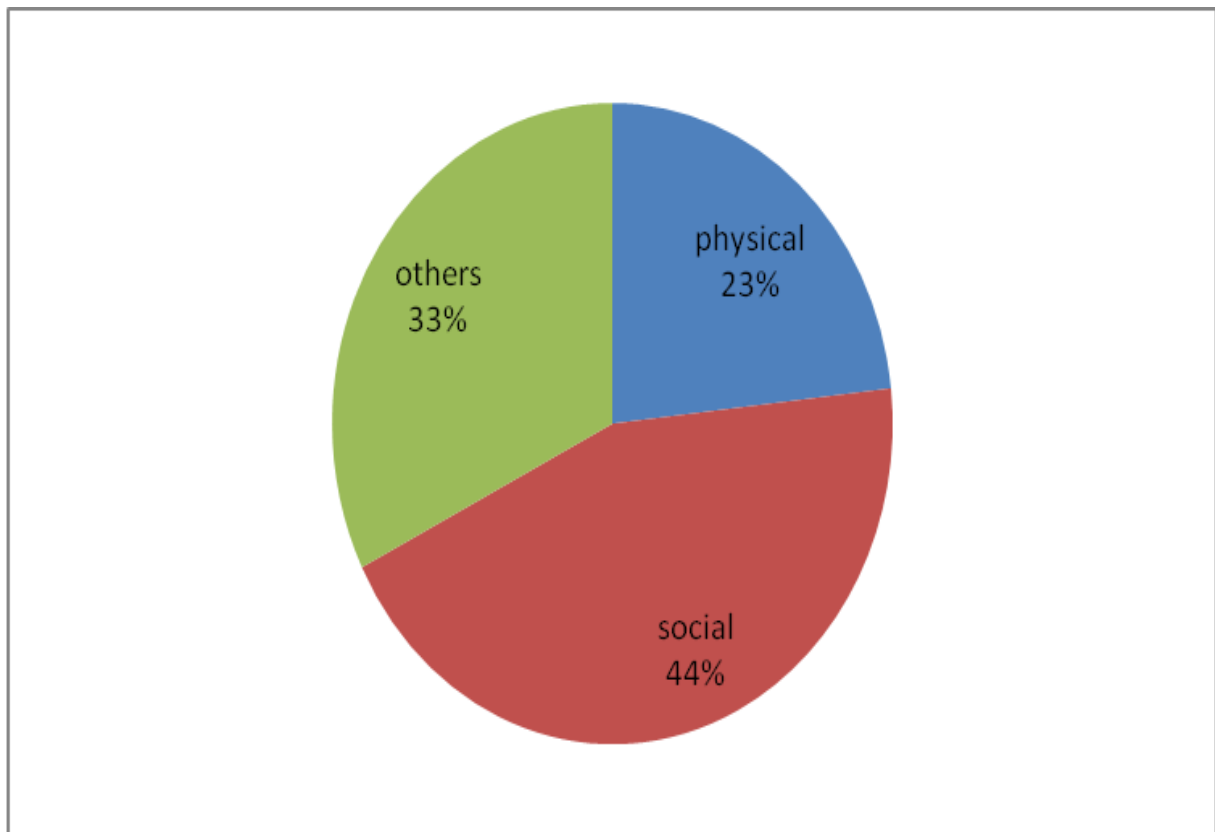
Figure 3: proportion of stressed students



The figure above illustrate that majority of respondents 142 (62.8 %) have ever been stressed since joining medical school ,while minority 84 (37.2%) have never been stressed since joining medical school

4.3 Most stressing factors for the medical students

Figure 4: percentage of most stressing factor

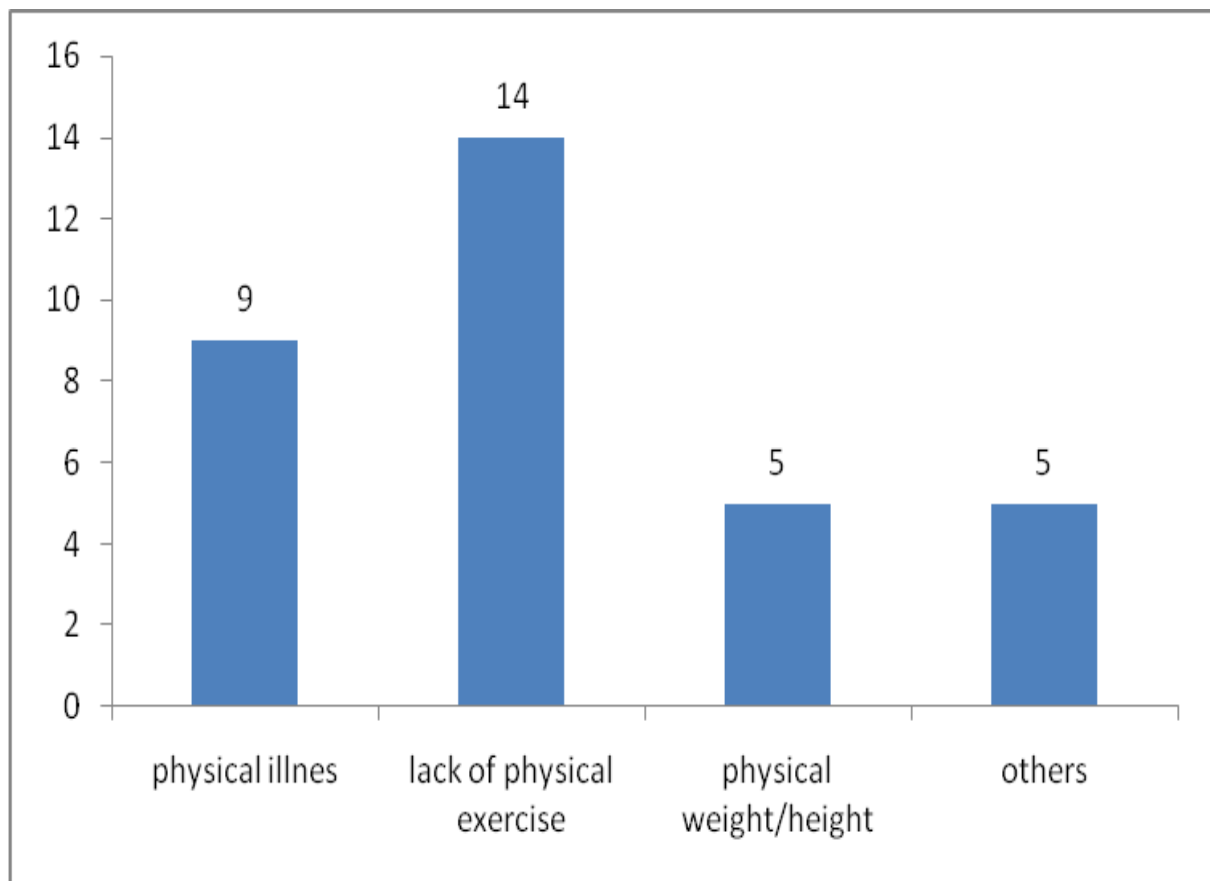


The figure above illustrate that of the respondents who have ever been stressed majority 63 respondents(44.4%) had social causes, 46 of the respondents(32.4%) had other causes and minority 33 respondents (23.2%) had physical causes

Of other causes of stress majority of respondents 30 (65.2%) had academic related factors as cause of stress while minority of respondents 16 (34.8%) had financial related causes

4.3.1 Physical causes

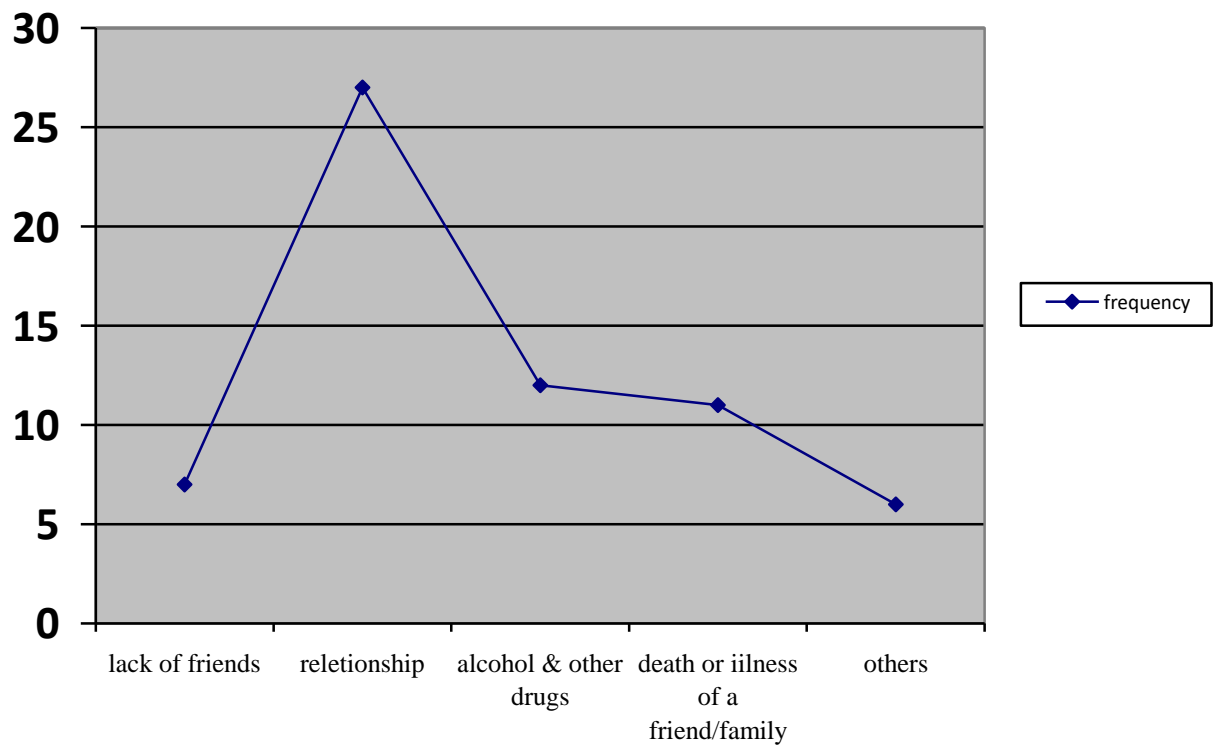
Figure 5: proportion of physical causes



The figure above illustrate that of respondents who had physical causes as factor for stress , 42.4% had lack of physical exercise as cause,27.2% had physical illness as cause, 15.2% had physical weight/height and another 15.2 % had other physical causes

4.3.2 Social factors

Figure 6: proportion of social causes



The figure above illustrate that of the respondents who had social causes majority 27 (42.9%) had relationship related causes, 12 (19%) had alcohol & other drugs causes, 11 (17.5%) had death/illness of friend or family member causes, 7 (11.1%) had lack of friends and 6 (9.5%) had other social causes

CHAPTER FIVE

Overall prevalence of stress in this study is 62.8% which is similar to other studies done among medical students in Thai and Saudi Arabia study: 61.4% and 57%, respectively but higher than Malaysian (41.9%) 11 and British study (31.2%) (). This stress level is generally higher than for the general population.

The stressors in the study included physical stressors, social stressors and other stressors of which the social stressors had the highest percentage of 44%. This differ from other studies that have been done among medical students that indicate that that the most stressing factor among the medical students is the academic stress (Kaufman et.al 1998), but this may be an indicator that social factors also play a big role in the life of medical students during their time of study. The high level of social stressor in an indicator of lack of educational program to deal with social issues among the medical students.

Among the social factors majority (42.9%) had relationship related issues this is similar other studies that have shown that majority of medical students had relationship related problems (Narasappa, 2013), this can be attributed to the fact that medical training is rigorous and during this period of training the students usually have limited time to concentrate on relationship related issues. In addition to relationship related issues other social related stressors were alcohol & other drugs 19%, death and illness of family member or friend 17%, lack of friends 11% and other social factors at 6%, this may be attributed to lack of social skills among the medical students

Physical causes of stress accounted for 23.2% of the medical who had experienced stress of which 42.4 % due to lack of physical exercise, 27.2% due to physical illness, 15.2% due to physical weight or height and 15.2% due to other physical causes, this may be attributed to the fact that medical education is so demanding to the extent that the medical students do not have the time to attend to their physical needs hence physical causes of stress

Among the other cause of the stress majority 65.2% had academic related causes of stress while minority 34.8% had financial related cause of stress. The high level of academic cause of stress in this study is similar with other studies that have shown high level of academic related cause of stress (Kaufman et al, 1998).

CHAPTER SIX

6.0 CONCLUSIONS

A healthy nation requires the services of healthy doctors. Medical students represent the future doctors and it becomes a clamant need that the physical and the mental health of these students are preserved and promoted. Both academic and non-academic sources of stress should be considered in curriculum planning and the working environment for medical education. The educational system should deal with the potential stressors for students by stress management programs. Effective assistance from teaching staff, faculty administrators, and families is essential

6.1 RECOMENDATIONS

- There should be regular workshop for students on stress management.
- There is also a need to improve the infrastructure, quality of training and evaluation system
- Further longitudinal studies are encouraged to evaluate the mental health to see the long term effect of stress in their professional work.

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Appendix i

Components	Time frame/ duration
Commence research proposal	1/6/2014 – 20/8/2014
Data collection	5/9/2014 -10/9/2014
Data entry	12/9/2014 – 15/9/2014
Data cleaning and preliminary analysis	18/ 9/2014 – 19/9/2014
Data analysis and report writing	21/9/2014- 28/9/2014
Finalize report	1/10/2014 -3/10/2014
Discuss recommendations	10/10/2014- 20/10/2014
Presentation and dissemination	28/10/2014

Appendix ii

QUESTIONIER

A QUESTIONIER FOR STUDY FACTORS CONTRIBUTING TO THE HIGH STRESS
LEVEL AMONG UNDERGRADUATE MEDICAL STUDENTS ATTENDING
KAMAPALA INTERNATIONAL UNIVERSITY WESTERN UGANDA

1. SEX

Male

Female

2. AGE

23 years and below

24 – 26 years

27 years and above

3. What is your average expenditure per day?

Less than 5,000/=

5,000-10,000/=

10,000-30,000/=

More than 30,000

4. Have you ever been stressed since joining medical school

Yes

No

5. If yes; What is the most stressing factor since joining medical school (tick one)

Physical causes

☐

Social causes

☐

Others (specify).....

☐

6. If social life; What social factor caused you stress

Lack of friends

☐

Relationships (boyfriend/girlfriend/husband/wife)

☐

Alcohol and other drugs

☐

Death or illness of a friend or family member

☐

Others (specify).....

7. If Physical, what physical factors were responsible for stress

Physical Illness

☐

Lack of physical exercise

☐

Physical weight/height

☐

Others (specify).....

☐