

ST. PAUL`S HOSPITAL MILLENIUM MEDICAL COLLEGE



**PREVALENCE OF STRESS AND COPING STRATEGIES AMONG
MEDICAL STUDENTS LEARNING AT St. PAUL HOSPITAL
MILLENIUM MEDICAL COLLEGE**

BY; FIRDOS ALI

**A RESEARCH REPORT TO BE SUBMITTED TO DEPARTMENT OF
PUBLIC HEALTH SPHMMC IN PARTIAL FULFILMENT OF THE
REQUIRMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE**

JULY 2018

ADDIS ABABA, ETHIOPIA

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List of abbreviations

FMOH Federal ministry of health

SPHMMC St. Paul's Hospital millennium medical college

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Summary

Background

Students undergoing training in medical school are not always prepared to deal with the challenges of the classroom and the clinical practice settings. They have the pressure to study new subjects, excel in their examination, getting practical experience in caring for patients with various disease conditions, as well as face other challenges which are similar to those experienced by college students. They may use healthy or unhealthy methods to cope with stress.

This study aimed at exploring the perceived stress level, and the coping strategies among medical students at SPHMMC.

Objective:

To determine prevalence of stress and coping mechanisms used by medical students currently learning at SPHMMC.

Methodology/Study design:

A cross sectional study using a semi-structured self administered questionnaire was carried out over four weeks, using 350 students of all categories and classes of a medical college.

Results

Among the 350 students participated in the research majority were females accounting 54.3%.The mean age is 22 and the age range of 18-26.the majority of responders were orthodox accounting for 52%.According to the study 53.2% of medical students at SPHMMC responded to be stressed during their stay at the college from which 19.2% reported experiencing sever stress.

Students use various coping strategies among those sharing problems with family and friends is the commonly used healthy coping strategy (55.2%) where as sleeping too much was the common unhealthy coping strategy (44.4%).

Conclusion and Recommendation

Medical students at SPHMMC experience significant stress during their study period. Majority of students 53.2% are stressed among which 19.2% of students experienced sever stress. There is a need to improve awareness and utilization of counseling and guidance service.

1. Introduction

1.1 background of study

Stress can be defined as ‘‘ a state of mental or emotional strain or suspense’’ and also as ‘‘a number of normal reactions of the body (emotional, mental, and physiological) designed for self preservation’ [1] .Despite it’s diffuse perception most of the well known definitions emphasize stress as ‘‘any factor that threatens the health of an individual or has an adverse effect on the functioning of the body’’. As such, stress is normal, desirable, and beneficial part of our lives that can help one learn and grow. Most people are more active, invigorated, creative, and productive because of stress. Conversely, stress can cause significant problems. Prolonged, uninterrupted, unexpected and unmanageable stress is demanding. Coping with the help of drugs, analgesics, alcohol, smoking and eating actually are counterproductive and may worsen the stress [2].

Stress can best be managed by regular exercise, meditation or other relaxation techniques, structured timeouts and learning new coping strategies to create predictability in our lives. The management of stress depends mainly on the willingness of a person to make the changes necessary for a healthy lifestyle [2].

A student’s life is subjected to different kinds of stressors such as pressure of academics with an obligation of success, uncertain future and difficulties envisaged for integration into the system. These students face social, emotional, physical and family problems which may affect their learning ability and academic performance. Some of them find it hard to cope with stress and lag behind, while others see the pressure as challenge to work harder [3].

Medical students particularly perceive themselves more likely to become ill than others. Stress can lead to disruption in both physical and mental health. Stress reduction and adopting a healthier life style have been major concerns of students. Students revert to different coping strategies, harmful as well as constructive [3].

In addition to coping with the normal stressors of everyday life, medical students must deal with stressors specific to medical school. These include information and input overload, financial indebtedness, lack of leisure time, and pressures of work, work relationships and career choices [3]. 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. High levels of stress may have a negative effect on mastery of the academic curriculum, by impeding concentration, problem solving, decision making, completion of work and other abilities necessary for student learning in medical school [4].

1.2 Statement of the problem

Medical education is inherently stressful and demanding. Overwhelming burden of information leaves a minimal opportunity to relax and recreate and sometimes leads to sleep deprivation. It constitutes of various stressors which may cause impaired judgment, reduced concentration, and loss of self esteem, increased anxiety and depression [1].

Stress is a common scenario among medical students. It could be due various stressors like vastness academic curriculum, high parental expectations, frequency of examinations, lack of time for recreation, performance in practical's, family problems and so on. These problems could cause immense amount of stress which could make it difficult for the student to cope [3].

Stress can be manifested by different symptoms among different students. Stressed students might experience low moods, inability to concentrate, change in sleep pattern, short temper, and difficulty of making decisions, loneliness [2].

Students who experience stress could use it as a challenge to work harder while others experience difficulty in day to day functioning. There are different coping mechanisms implemented by students. Some of them cope by spending time with friends, sleeping, music, sports, religion, studying while others use alcohol and drug use, Self blame, denial, behavioral disengagement and self distraction [4].

The person's attempts to manage a stressful situation is called coping. Different strategies may be used to cope with stress. If the coping strategy adopted by the person was healthy, the stress is resolved, if not the anxiety associated with the stress persists and he could later develop some mental illness. Medical students are often exposed to stress which can interfere with their academic and social life and, medical school can be extensively stressful for learners [3].

1.3 Significance of study

Because medical students experience enormous amount of stress it could result in a significant amount of psychological morbidity like anxiety and depression [5]. Depression and anxiety states are not desirable events in a community. The potential negative effects of emotional distress on medical students include impairment of scholastic functioning in classroom environment and clinical situations when stress-induced disorders compromised their performances [6]. Students in extreme stress or depression need serious attention, as the affected are unable to cope rationally with the enormous stress of education, which may lead to the vicious cycle of undesirable outcomes at both personal and professional levels [4]. This research can assist in instituting specific interventions for successful student management strategies in their stressful conditions.

It is hoped that the results of this research will be helpful to SPHMMC medical students to help them cope with stress and use their stress as challenge and work harder. It will also help the college to come up to a solution to help students to use positive coping strategies.

2. Literature Review

The prevalence of perceived stress seems to be high among medical students, which tends to affect not only their academic performances but also all aspects of health. Review of academics and exam schedules, more leisure time activities, better interaction with the faculty and proper guidance, advisory services and peer counseling at the campus could do a lot to reduce the stress [1].

World

On a study done in Pakistani medical school on stress and coping mechanisms among in medical students in Aga Khan University (AKU) in Karachi Pakistan. The response rate was 88% (264 out of 300), out of which 138 (52.3%) were males, and 126 (47.7%) were females. A large majority of students perceive stress as mental tension, external pressure affecting work, psychological burden, helplessness, inability to cope, increased workload and high expectations. For some, it is a break in the normal routine, lack of concentration, hopelessness, reaction to unpleasant environment, loss of interest, inferiority complex, depression etc. Few express it as an excess of functioning of one's physical, mental or spiritual being leading to partial or complete exhaustion of that individual. More than 90% of the students maintained that they have had episodes of stress while in college at one time or more. This includes 94.1% males and 91.1% females [1].

A cross-sectional, questionnaire-based survey was carried out among the undergraduate medical students of Manipal College of Medical Sciences, Pokhara, Nepal showed that A total of 525 students (i.e. 290 basic science students and 235 clinical science students) were invited to complete the questionnaires[6]. The overall response rate was 75.8% (basic science 82.4% and clinical science 71.5%). The mean age of the respondents was 20.7 years (SD = 1.8) with a range of 17–29 years. The most frequently occurring sources of stress were, 'quality of food in mess', 'high parental expectations', 'dissatisfaction with the class lectures', vastness of academic curriculum/syllabus', worrying about the future', 'lack of entertainment in the institution', 'frequency of examinations', 'becoming a doctor

(expectations on all fronts)', and 'lack of time for recreation'. 'Quality of food in the mess', 'worrying about the future', 'high parental expectations', 'dissatisfaction with the class lectures', 'lack of entertainment' in the institution, 'vastness of academic curriculum/syllabus', and 'frequency of examinations' were rated as most severe. The five most common coping strategies adopted by the students during the events of stress were 'positive reframing', 'planning', 'acceptance', 'active coping' and 'self distraction'. However, there were significant differences in the coping strategies used by the students according to GHQ-caseness, gender, phase of study (basic or clinical sciences) and occupation of the parents. The students who were GHQ-cases used self blaming, planning, self distraction, denial and venting. Male students used active coping, alcohol/substance use and self blame. Clinical sciences students were using alcohol and instrumental support as coping strategies. Students whose parents were doctors were using planning and emotional support [5].

The conclusion of the research was that the higher level of psychological morbidity warrants need for interventions like social and psychological support to improve the quality of life for these medical students. Student advisors and counselors may train students about stress management. There is also need to bring about academic changes in quality of teaching and evaluation system. A prospective study is necessary to study the association of psychological morbidity with demographic variables, sources of stress and coping strategies [5].

One conducted in the UAE assessed medical students' overall health and lifestyle needs, including self reported stress levels[6]. In addition to other health-related indicators, the investigators found a highly significant positive relationship between stress scores and students' perceptions of whether or not their stress was too high. Among other health issues, the authors expressed concern about high actual and perceived stress levels for these students when compared with US college students. Another study evaluated the prevalence of stress and depression among male medical students in a single Saudi Arabian medical school. 57 percent of students had experienced stress and 19.6% reported

perceived severe stress. A significant association between first year of study and higher stress levels was reported [6].

Africa

Another study compared perceived stress among a sample of male medical students in Egypt and Saudi Arabia attending individual, national medical schools in each country[7]. The majority of students reported one or more stressors (95% in the Egyptian school and 92% in the Saudi school). Although there were no significant differences between the two student groups in number of perceived stressors, Egyptian students were more likely than their Saudi counterparts to mention relationship, academic and environmental problems as stressful. Among Egyptian students, the most commonly perceived stressors were congested classrooms (71%), inconsiderate and insensitive instructors (33%), fear of the future (27%), limited time for recreational activities (25%), and anxiety and depression (25%). Anxiety and depression were significantly higher among Egyptian students. Logistic regression analysis revealed that family income perceived by students to be satisfactory and highly educated fathers were independent protective factors for severe stress (odds ratio 0.5 and 0.6 respectively) while anxiety and number of stressors were risk factors (odds ratio 2.3 and 1.3 respectively)[7].

Ethiopia

In a study done in Bahir Dar University on stress and its coping strategies among medical students, The findings of study suggested that the overall stress level as 37.4% with an alarming concern of 24.4% of students had severe stress. Stress from taking care for patients, Stress from teachers & other hospital staffs, assignments & workload and stress from clinical environment were the top four subscale stressors for medical students of Bahir Dar University [2].

3. Objective

General objective

- To assess the prevalence of stress and its coping mechanism among medical students at SPHMMC and suggest possible recommendation for the problem.

Specific objectives

- To assess the prevalence of stress among medical students at SPHMMC
- To assess the prevalence of various coping mechanisms to stress implemented by students at SPHMMC

4. Methods and materials

4.1 Description of study area

The study was conducted in St. Paul's hospital millennium medical college which is the second largest hospital in Ethiopia located in Addis Ababa, Gullele sub city. The hospital was established with the willingness and support of Emperor Haile Sillassie II and has been giving medical service for more than fifty years by giving due concern for the people with low level of income.

A medical college, the millennium medical college was opened in 2007G.C. (2000 E.C.) to commemorate the new millennium of Ethiopian calendar. The college was established by the Ethiopian FMOH with Professor Gordon Williams of the department of urology at London University. Currently there are 797 students and much more medical staffs including physicians, nurses and other health care professionals (radiographers, laboratory technicians).

4.2 Study design

A cross sectional study design was selected as an appropriate method to conduct this particular research.

4.3 Study period

November 22, 2018 –July 30, 2018 G.C

4.4 Source population

All medical students currently learning at SPHMMC.

4.3 Study population

A sample of medical students learning at SPHMMC.

4.4 Study unit

Data was collected from students at SPHMMC according to the inclusion and exclusion criteria.

4.5 Eligibility criteria

4.5.1 Inclusion criteria

All medical students from first up to sixth year learning at SPHMMC at the time of data collection.

4.5.2 Exclusion criteria

- Students who aren't willing to participate in the study.

4.6 Data collection

The data utilized in this research was primary data which was obtained from medical students who are candidates. Standard self administered questioners which are designed to asses the prevalence of stress and it's coping mechanism among medical students at SPHMMC. The questionnaire was adapted from previous studies and after review of literatures relevant to the problem under study to include all the possible variables that address the objective of the study. In order to minimize error during filling the questionnaire a brief orientation was given by the collectors earlier.

4.9 Sample size

The sample size was determined taking into account the 95%level of confidence; the margin of error (d) .05. From the study was done on prevalence of stress and its coping mechanism among medical students in bahir dar (p) value will be 37.4. Taking the above variables and the total population into account the sample size was calculated as follows:

$$n = \frac{Z_{\alpha/2}^2 p (1 - p)}{d^2}$$

Based on the above formula the sample size will be 350.

5.0 Sampling method

We used systematic random sampling method to select students to fill the questionnaire.

5.1 Operational definition

Perceived stress scale

No stress= 1-6

Borderline stress=7-11

Mild stress=12-18

Sever stress=19-25

Stress

Negative stressor which was indicated by 1 and 2 scores; Undecided= 3 score

Positive stressor= 4 and 5 scores.

Coping strategies

Rarely used strategies indicated by scores 1 and 2 Undecided indicated by score 3

Frequently used coping strategies 4 and 5

Positive and negative statements will be rated by the respondents on a 5 point Likert scale with the score of 0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often and 4 = Very Often.

5.2 Data processing and analysis

Processing of the data was begun by checking the gathered data for accuracy and completeness. Each completed questionnaire was assigned unique code and entered into computer by using EPI Info version 3.5.1 and exported to SPSS version 20 for further analysis. Summary of the data was presented using frequency distribution and tables. Continuous variables were presented as mean and standard deviation (SD) and categorical variables were presented as frequency and percentages.

5.3 Data quality control

Pretest of the questionnaire was carried out to ascertain whether the questions and instructions are well understood by the respondents and determine whether there is a need for revision of the format or presentation of the questionnaire with regards to sequence and wording of questions or the need for additional instructions. Interview questions were

revised, edited, and those found to be unclear was modified. The research advisors reviewed the modified structured questionnaire before the study is conducted. During the data collection procedure, all the collected data was reviewed and checked for its completeness.

Independent variable

- Age
- Sex
- Year of study
- Religion
- Monthly income

Dependant variables

- Stress

5.4 Ethical considerations and procedures

Permission to do the research from SPHMMC Public Health department was given. The study's objectives and its benefits were clearly explained to the respondents before conducting the interview so that they provide accurate and honest response. Respondents were informed of their right to refuse the interview or stop anytime during the interview. The participants were assured that their data and information would be kept confidential, and that it will not be shared outside the concerned bodies. In order to protect the confidentiality of the information, names were not included in interview questions. A verbal consent is asked before the interview is initiated.

5.5 Dissemination of findings

The findings was first reported to SPHMMC public health department for evaluation purpose and a copy of it will be given to student council, psychiatry department all other responsible bodies in the study area, including FMOH. Apart from this, I would like to share the contents of this research to other members of health science in any available outlet.

5. Result

Socio-demographic characteristics

A total of 350 students were involved giving a response rate of 100% and among the total respondents 160(45.7%) were male and 190(54.3) were female and majority of the responders 182(52%) were orthodox. The majority of responders were fourth year students 73(20.9%) followed by third year accounting for 68(19.4%). Ninety six percent of responders were single. The overall age range was 18-26 and the mean age is 22.

Table 1.Distribution of socio-demographic characteristics of students at SPHMMC, Ethiopia July 2018

Socio-demographic characteristics			
Background variables		N	%
Sex	Male	159	45.4%
	Female	190	54.3%
Religion	Orthodox	182	52%
	Muslim	101	28.9%
	Protestant	64	18.3%
	Others	3	0.9%
Age	18-20	125	35.6%
	21-23	167	47.7%
	24-26	58	16.6%
Marital status	Single	336	96%
	Married	8	2.3%
Year of study	First	60	17.1%
	Second	65	18.6%
	Third	68	19.4%
	Fourth	73	20.9%
	Fifth	40	11.4%
	Sixth	44	12.6%
Monthly income	<1000	267	76.2%
	1001-2000	29	8.2%
	2001-3000	14	4%
	3001-4000	50	14.2%

Perceived Stress level

According to the study 53.2% of medical students at SPHMMC responded that they have been feeling stressed at some point in their stay at the college. From which 34% expressed mild stress and 19.2% experienced severe stress.

Table 2 Perceived stress level among medical students of SPHMMC July 2018

Level of stress	N	%	Pss score
No stress	63	14.8%	1-6
Borderline stress	87	32%	7-11
Mild stress	95	34%	12-18
Severe stress	55	19.2%	19-25

Stressors

The most common cause of environmental stressor is the change in environmental condition (48.2%). The second reported cause of stressor is lack of calm and quiet environment around the campus (42.6%). The most common academic stressors were the vastness of academic topics to be covered (73.7%) and finding lower grade than expected (52.3). (Table 2)

Table 3 distribution of environmental and academic stressors among medical students of SPHMMC July 2018

Environmental stressor	Student response		
	Positive stressor	Undecided	Negative stressor
Found the change in environmental condition stressful	169(48.2%)	101(28.9%)	80(22.9%)
Found Lack of calm & quiet environment around the campus stressful	149(42.6%)	130(37.1%)	71(20.3%)
Found the lack adequate water supply around the campus stressful	117(33.4%)	172(49.7%)	61(17.5%)
Academic stressor			
Found the vastness of academic topics to be covered stressful	257(73.7%)	69(19.7%)	24(6.5%)
Found getting lower grade than expected stressful	183(52.3%)	149(43.3%)	18(4.4%)
Found lack of adequate vacation stressful	177(50.5%)	117(33.4%)	56(16%)
Worry about not being able to provide patients with good medical care	157(44.8%)	116(33.1%)	77(22%)
Found not knowing how to communicate with patients properly stressful	81(23.2%)	118(31.4%)	151(45.4%)
Worried about not being trusted or accepted by patients or their family	74(21.1%)	136(38.9%)	140(40%)

Coping strategies

The coping strategies adopted by students are classified as healthy (positive) and unhealthy (negative) coping strategies [3]. While the students reported use of various coping methods to relieve stress the majority use sharing problems with family and friends as a healthy coping strategy 193 (55.2%) followed by going to religious places and pray 184 (52.6%) and listening to radio and music to relieve stress. Seeking professional help when stressed is the least commonly used positive coping strategy. Where as sleeping too much was the common unhealthy coping strategy 144 (44.4%) followed by postponing work 134(34.3%) and blaming self and others 119(34%).

Table 4 distribution of positive and negative coping strategies among medical students of SPHMMC July 2018

Positive coping strategy	Student response		
	Negative response	Undecided	Positive response
Share problems with family and friends	78(22.3%)	155(44.3%)	193(55.2%)
Listening to music or radio to relieve stress	93(26.6%)	100(28.6%)	157(44.8%)
Use sport exercises to relieve stress	188(53.7%)	76(21.7%)	86(24.6%)
When feel stressed how often go to religious places and pray	59(17.7%)	104(29.7%)	184(52.6%)
Seek professional help when feel stressed	297(84.9%)	39(11.1%)	14(4%)
Use planning and scheduling activities when feel stressed	97(27.7%)	138(39.4%)	115(32.8%)
Negative coping			
Dealt with stress by withdrawing oneself from friends, family	119(34%)	125(35.5%)	106(30.2%)

Consuming alcoholic drinks to relieve stress	233(69.1%)	39(11.1%)	78(19.7%)
Smoking cigarette to relieve your stress	301(86%)	34(9.7%)	15(4.3%)
Chewing khat to help avoid stress	264(74.8%)	65(15.6%)	24(6.6%)
sleeping too much to relieve stress	100(28.6%)	106(30.3%)	144(44.4%)
When stressed, blame oneself or others	97(27.7%)	134(38.3%)	119(34%)
Deal with stress by postponing work	75(21.4%)	141(40.3%)	134(34.3%)

7. Discussion

Stress is a physical, mental, or emotional response to events that causes bodily or mental tension. In small amounts, stress is normal and can help us be more active and productive. However, very high levels of stress experienced over a prolonged period can cause significant mental and physical problems [2].

Medical students have been vulnerable to stressful conditions especially in pursuit of higher professional education in a highly competitive environment [4]. Large majority of medical students at SPHMMC consider themselves stressed at one time or another. In this study 53.2% of medical students at SPHMMC responded that they have been feeling stressed at some point in their stay at the college. From which 34% expressed mild stress and 19.2% experienced severe stress.

The prevalence of stress among medical students of SPHMMC is higher than medical students in Bahirdar [2]. 37.4% of Bahirdar medical students are stressed while 53.4% of medical students at SPHMMC are stressed. This difference can be attributed to the difference in campus environment, academic curriculum employed, the type of coping strategies used and sociodemographic characteristics.

The study done in Bangladesh revealed that the overall prevalence of stress of the study population was 54% which is relatively similar to the finding of this study [6]. Similarly another study done in Saudi Arabia showed that the prevalence of stress was 53%[4]. Another study done at Jazan University Saudi Arabia showed that the prevalence of stress was 71.9%[9]. Which is a higher level than the stress experienced by students at SPHMMC. The varied results in different studies can be attributed to the setting of medical school, the Curriculum difference, and the examination system. The difference could also be due to the variations in students of study, hospital setup differences and exposure to clinical practices [2].

Among the stressors students reported in this study are academic stressors like vastness of academic topics to be covered; getting lower grade than expected and lack of adequate vacation are main causes of stress among these students. In addition the students also found worrying about not being able to provide patients with good medical care, not knowing how to communicate with patients and fear of not being trusted by patients and their family stressful.

But in a study done in Bahirdar revealed that students are highly stressed from taking care of patients, lack of care and guidance from teachers, unfamiliarity with patients diagnosis and treatments, unable to provide patients with good medical care were the major causes of stress [2].

Medical students at SPHMMC employ different coping strategies some use positive coping strategies while others use negative and harmful coping mechanisms to deal with stress. Among the positive coping strategies students commonly use sharing problems with family and friends(55.2%), going to religious places and pray(52.6%), listening to music and radio to relieve stress(44,8%). The least commonly used coping strategy is seeking professional help when stressed (4%).

The commonly used negative coping strategies used by students are sleeping too much (44.4%),postponing work(34.4%), self blame (34%), withdrawing oneself from family and friends (30.2%).The less commonly used coping strategies are drinking alcohol to relieve stress(19.7%),chewing chat and smoking cigarette(4.4%).

8. Limitation of the study

The research might be susceptible to social desirability bias which is a type of response bias that is the tendency of respondents to answer questions in a manner that will be viewed favorably by others,

9. Conclusion

Medical students at SPHMMC experience significant stress during their study period. Environmental factors like the change in living environment and academic factors like the vastness of academic factors to be covered, getting lower grade than expected are the problems faced by many of the students. The students use various coping methods to deal with the stress like sharing problems with family and friends, going to religious places and pray. Among the negative coping strategies they use sleeping too much and self blame.

10. Recommendation

Based on the finding of the study the following recommendations

Are forwarded

To SPHMMC

- Their should be adequate orientation program about the courses and what is expected from students at the start of the course
- The college should acknowledge and motivate students with good achievement from every year students
- Time management and stress management course should be taught as part of first and second year curriculum

To Student council

- The student counsel should prepare various entertainment Options for students

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ANNEXES 1: QUESTIONNAIRE (4, 23, 28)

SPHMMC, DEPARTMENT OF PUBLIC HEALTH

Preamble

Dear respondent! The purpose of this questionnaire is to collect data important for prevalence of stress and coping mechanisms among medical students at SPHMMC.

Questions included in this questionnaire enable the researcher to get more information on stress and coping mechanisms prominently used among medical students that can be used to design appropriate interventions so as to address the rising problem. Information you give will serve only this stated academic purpose and your name will not be written on this form and no individual response will be reported to anybody. Hence, your answers are completely confidential. You do not have to answer any question that you don't want to answer and you may refuse to answer all of the questions. Therefore, your honest and genuine participation by responding to the questions prepared is highly appreciated and helpful to attain the objective of the study.

Please, if you cooperate by responding to the questions it means that you have your own contribution to the success of this study.

Would you be willing to answer?

If yes, proceed to the next page

If no, please stop here.

General instruction:

For close ended questions choose the appropriate response that reflect your situation and write the number of your choice in the corresponding provided box.

For open ended question, specify the respondent view and write on space provided.

Questionnaire ID Number.....

Segment 1: Demographic and Socio-economic issues

101.Sex

1. Male 2. Female

102.Age (yrs.)

103.Religion.....

1. Orthodox 2. Muslim 3.protestant 4. Others

104. Year of study

1. First 2. Second 3. Third 4. Fourth 5. Fifth 6. Sixth

105. Marital status.....

1. Single 2. Married

101. Can you tell me your estimated monthly income? _____

Segment 2: Stressors	Never	Almost never	sometimes	often	Always
Part1. Environmental stressors					
201. In your stay, how you ever found the change in environmental condition stressful?					
202. Have you ever found Lack of calm & quiet environment around the campus stressful?					
203. Have you ever found the lack adequate water supply around the campus stressful?					

PART 2 Academic stressors					
204. Have you ever found the vastness of academic topics to be covered stressful?					
205. How often do you find getting lower grade than expected stressful?					
206. How often do you find lack of adequate vacation stressful?					
207. How often do you worry about not being able to provide patients with good medical care?					
208. Have you ever found not knowing how to communicate with patients properly stressful?					
209. Have you ever worried about not being trusted or accepted by patients or their family?					
Segment 3: coping strategies					
301. When you feel stressed , how often do you share your problems with your family and friends?					
302. How often do you use listening to music or radio to relieve your stress?					

303. How often do you use sport exercises to relieve your stress?					
304. When you feel stressed how often go to religious places and pray?					
305. Have ever seek professional help when you feel stressed?					
306. How often do you use planning and scheduling activities when you feel stressed?					
307. Have you ever dealt with your stress by withdrawing your self from friends, family or activities?					
308. Have you ever used consuming alcoholic drinks to relieve stress?					
309. Have you ever used smoking cigarette to relieve your stress?					
310. How often do you used chewing khat to help you avoid stress?					
311. How often do you sleeping too much to relieve your stress?					
312. When you feel stressed, how often					

do you blame your self or others?					
313. How often do you deal with your stress by postponing work?					
Segment 4: Perceived stress scale					
401. In your stay, how often have you felt nervous and “stressed”?					
402. In your stay, how often have you felt that things were not going your way?					
403. In your stay, how often have you found that you could not cope with all the things that you had to do?					
404. In your stay, how often have you been angered because of things that were outside of your control?					
405. In your stay, how often have you felt difficulties were piling up so high that you could not overcome them?					