

Stress Management among Medical Students in Nigerian Universities

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Abstract

Stress is the body's reaction to changes that requires physical, mental or psychological adjustment. It occurs when pressure exceeds an individual's perceived ability to cope with daily demands at any point in time. Undergraduates, especially those in medical courses often experience stress mainly as a result of the demanding nature of their course and the inability of the students to manage their time and prioritize their interests. This often results to poor health and reduces academic performance of the students. This study aimed at identifying causes of stress among medical students in Nigerian universities, its associated effects and ways of managing these identified stressors. The study suggests among others cognitive and behavioural efforts on part of the students. This will help them set their priorities right, plan ahead and organize themselves so as to reduce the negative consequence of stress.

Keywords: stress; medical students; stress management.

I. Introduction

Stress is defined as the body's nonspecific response to demands made upon it, or to disturbing events in the environment [1]. It is the body's reaction to changes that requires physical, mental, or physiological adjustment. Stress is said to occur when pressure exceeds an individual's perceived ability to cope with daily demands at any point in time [2]. This therefore means there is a verge for stress for every individual beyond which the person(s) concerned may not be able to cope. The amount of stress which a person can endure depends on the individual's level of tolerance. Some people can cope within certain stress levels while some others collapse at the slightest outburst of stress.

An optimal level of stress is beneficial and may enhance learning but excessive stress can cause physical and mental health problems, reduced self-esteem, and may affect learning and consequently mar personal and professional development. As such, stress could be classified as being good or bad. Bad stress is referred to as

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distress. In distress situations, the person is less motivated, and is unable to function effectively. Good stress is also called eustress. It is a form of stress in which the person involved perceives the stressor as positive. Perhaps, it is based on this observation, that a study in Nigeria, established a link between stress management skills and good academic performance among students [3].

Every student has a certain number of management or coping capacities which when challenged or exceeded, usually result to stress. In this case, it results to eustress and the student needs to double effort to be able to function effectively in such a state. Students worldwide are unique and learn a lot to function effectively even in a stress situation. Learning may be formal or informal. Formal learning usually takes place in school environment. Students in any learning environment, primary, secondary or tertiary learning environment differ in capacities to learn. Therefore, the rate at which students copes with environmental threats and challenges differ.

Tertiary education is the highest level of education where students are trained in their various disciplines to specialize in life. Medicine is one of the disciplines open to most science students. Every parent, especially in developing country like Nigeria, who has a science inclined ward/child usually would prefer the ward/child goes into the study of medicine, sometimes outside the will of the child. This is mainly because of the prestige attached and the assuming lucrative nature of the course.

Medical training worldwide has been regarded as being highly stressful. Medical training has long been recognized globally as involving numerous stressors that can affect the well-being of students [4]. Aside coping with stressors of everyday life, medical students must deal with stressors specific to medical education. These stressors includes overload of academic work, financial indebtedness, inadequate leisure time, pressures of work, work relationships and career choices. In addition, these students also have to contend with social, emotional, physical and family problems that may upset their learning ability and academic performance. Consequently, several studies observed that medical students experience high rates of psychological ill-health when compared with their fellow students in other disciplines as a result of stress.

Beyond this, it has also been observed from visits to many of the Nigerian universities that medical students on their own stress themselves up by engaging in deadline multi-tasks as a result of improper time management. The students more often than none, place their personal interests above school activities. This inability to prioritize and manage their time properly makes them end up on cross roads and fully stressed out. Therefore, this study aims at identifying stressors among medical students and finding ways of managing the identified stressors so as to enable them finish their programmes at the given time.

Concept of medical students

Medical students are those students who have enrolled into the university to study medicine and closely related medical courses such as dentistry and medical rehabilitation as a course. These departments fall under the faculty of medicine. Medical training involves a six-years programme which the students must undergo and take examination at the completion of every level. At their final year, they take the Bachelor of Medicine and Bachelor of Surgery (MBBS) examinations. Usually, at their first year, the students are meant to undertake general courses with

their science inclined counterparts. For example, they take physics, chemistry and biology as well as other general courses like Use of English at the first year. The first year is not usually associated with stress.

Studies have shown that perceived stress scale score increased progressively as the academic levels of the students increased [5]. The highest prevalence of perceived high stress was found among the 5th year medical students and closely followed by students in the final year class. From the second year to the final year are clinical classes. There has been a postulation that clinical medical training may be a source of high stress among medical students[6]. Also, the acquisition of applied clinical skills which is the hallmark of clinical training has been found to be associated with stress [7]. All these could explain why the clinical period of training has the highest proportion of those who were stressed.

Although, several reports have been documented on stress management among medical students in developed countries, there exists limited information relating to stress in developing countries like Nigeria hence the relevance of the study.

Stressor domains/ Perception of stress among medical students

Melaku, Mossie, and Negash [8] identified six stressor domains students have to battle with in medical schools. They include:

- i. academic related stress (ARS)
- ii. teaching and learning related stressor (TLRS)
- iii. social related stressor (SRS)
- iv. interpersonal related stressor (IRD)
- v. group activities related stressor (GARS)
- vi. desire and derive related stressor (DRS)

In their works on 'Prevalence of stress, stressors and coping strategies among medical students in a Nigerian medical school', Oku et al. reported that among top five stressors faced by the students are epileptic power supply, excess work load over a short period of time, overcrowded accommodation, unconducive lecture halls and inadequate transportation system to and fro lecture halls. [9] Garry-Eze also noted top five most frequently reported stressors were academic workload, too many tests, difficult courses, exam grades and lecturer characteristics [10].

In the above studies, academic related stressors appears to top the list. Among medical students, academic related stressor has multiple factors such as pressure on time with overloaded work, unconducive lecture halls, finances, health issues and self-imposed stress. Stress is unique and personal to each student. As such, what is stressful to one may be relaxing to another.

Stress is a process that builds. It is an integral part of every student's daily life and activities. It is manifested among medical students through thoughts, feelings, behaviour and physical symptoms. When a student is not stressed, boredom or depressed emotion sets in. Again, when stress is not identified and managed it leaves

students with severe physical and emotional damage which culminates to decline in academic levels of students. As stated earlier, the positive influence is seen as eustress which compels the student to action and in most cases brings the student to new discoveries. However, the negative influence of stress (distress) can result in feelings of distrust, rejection, anger and depression, which in turn can lead to health problems such as fatigue, headaches, upset stomach, rashes, insomnia, ulcers, among others.

Medical students are continually under some stressful conditions in the quest for education. Some perceived causes of stress among medical students include but not limited to failing important course/having lower grade than expected, financial problems, sexual concerns, increase in course load or difficulty, too many missed classes, relocating to another hall of residence, electing one to leadership position, breaking of relationship, new romantic relationship, change in living conditions, roommate problems, major personal injury or illness, long commute to school, change in sleeping habits, divorced parents, death of a loved one amongst others [11].

Strategies for managing stress among medical students

Stress cannot be removed from medical students but can be managed through utilization of appropriate stress management strategies which ensures students' health promotion, better quality of life and positive impact on academic performance. Managing stressful situations helps the student to handle the present situation and face the challenges ahead. It is necessary to set priorities, plan ahead and organize oneself so as to reduce the negative consequence of stress. Managing or coping has to do with cognitive and behavioural efforts put in to ensure that the specific external and internal demands that deplete individual resources are contained or managed [12].

Students engage in different strategies so as to manage their stress situations. Kristensen, et al. noted that when individuals are aware of the strategies they are using and are able to evaluate the context they are facing, they can adjust the coping strategy according to the reality they are experiencing, seeking the strategy that best fits their particular situation [13]. Stress management strategies are classified into active and avoidant coping strategies[14]. Active coping strategies are either behavioural or psychological responses designed to change the nature of the stressor itself or one's perception of it while avoidant coping strategies makes the students keep away from directly addressing stressor [14]. Active coping is regarded as a better way to manage stress, as the individual makes effort to remove the stressor using positive means while avoidant coping strategy involves withdrawing efforts towards removing the stressor thereby engaging in wrong behaviours such as the use of drugs or alcohols leading to negative effects.

Therefore, students can manage stress negatively or positively. In the case of negative adaptation caused by the use of negative stress management strategies, it becomes impossible for the student to reevaluate the stressor and confront the situation adequately. As such, he or she develops an intense feeling of withdrawal, and may engage in negative activities such as alcohol/drugs, denial, behavioural disengagement, etc.

Positive strategies for managing stress conditions include relaxation and engagement in leisure-time activities for palliating stress. Shaik, et al. revealed that the student can engage several strategies for managing stress positively. These include sports, music, hanging out with friends, sleeping or going into isolation, self-acceptance,

planning and positive reframing as well as taking the necessary steps to overcome the necessary steps to overcome the academic stress [15].

Shoda and Titiloye noted that stress can be minimized by both the school management and the students themselves[16]. The ways to minimize stress by school management include creating good environment, creating student-friendly time table and good hostel conditions. On the other hand, stress can be minimized by the student through self-encouragement, understanding one's learning styles and engaging in recreational activities. Some students however manage stress conditions using peer group support, avoidance, praying, day dreaming, listening to music and smoking, drinking, joking among others. These, in no small measure, give them relief and help them focus on their studies.

Consequences of identified stressors to psychological well-being of students

Fremont (retrieved from www.utexas.edu), construed that stress signals among students fall into four categories namely thoughts, feelings, behaviours and physical symptoms. When a student is under stress, he/she may experience the symptoms shown in the table below. [17]

FEELINGS	THOUGHTS	BEHAVIOURS	PHYSICAL
Anxiety, Irritability, Fear, Moodiness Embarrassment	Self-criticism, Difficulty concentrating or making decisions, Forgetfulness or Mental disorganization, Preoccupation with the future, repetitive thoughts, fear of failure.	Stuttering or other speech difficulties, crying, acting impulsively, nervous laughter 'snapping' friends, teeth grinding or jaw clenching, increased smoking, alcohol or other drug use, being prone to more accidents or decreased.	Tight muscles, cold or sweaty hands, head-ache, back or neck problems, sleep disturbances, stomach distress, more colds and infections, fatigue, rapid breathing or pounding heart, trembling, dry.

Source: www.indiana.edu

Stress reduces one's sensitivity to the needs of the school and also the capability for appropriately flexible response when needed. According to Indiana University Health Center, as the body responds to various forms of physical or psychological stress, certain predictable changes occur. These factors include increased heart rate, blood pressure and secretions of stimulatory hormones. The findings also emphasized that the results of continuing stress may cause disruption in one or more of the following areas of health notably physical, emotional, spiritual and social.

Recurrent physical and psychological stress can diminish self-esteem, decrease interpersonal and academic effectiveness and create a cycle of self-blame and self-doubt. In Lazarus and Folkman 1984 cited in Ong and Cheong the authors speculated that a person's response towards stress depends on whether an event is considered as a challenge or a threat[18]. Hence, individual differences come into play as one's perception of stress differs from another.

In addition, medical students on their own indicated some perceived illness that could be caused by stress to include depression, sadness, anxiety, restlessness, nervous and many others. When stress among medical students becomes excessive, it affects their academic performance and leads to depression, substance use, and in extreme cases, suicide. The excessive amount of stress in medical training predisposes students to be tempted to cheat during examinations and to have difficulties in solving interpersonal conflicts, decreased attention, reduced concentration, loss of objectivity, increased incidence of errors, and improper behaviour, such as negligence [19] as well as impaired judgments, absenteeism, self-medication, and addiction to substances like cigarette/weed smoking, and alcohol drinking.

II. Conclusion

Stress occurs when an individual is confronted with a situation that is perceived as overwhelming and with which he/she cannot manage [20]. Medical students in Nigerian universities are exposed to a lot of stressors during their course of study especially at the clinical levels of their study. But to be able to manage stress, the sources must be identified. It is only when the source is identified that solution to such can be proffered. Workshops on stress prove to be an effective way to help medical student manage stress through their academic years. Both the school and the students themselves can also use different measures to manage stress. Effective stress management enhance academic performance and reduce physical and psychological effects of stress.

Suggestions

The following suggestions are made for the study:

1. Counseling centres within the university should help students identify their sources of stress as well as recommend personal strategies for managing such stress.
2. Undergraduates should be equipped with the skills necessary to recognize personal distress and to develop strategies to promote their own well-being in the course of their training.
3. Part of the students training should include conscious effort on time management as this will help them make proper schedule of the limited time at their disposal.
4. There should be public enlightenment programmes and regular symposiums by counseling unit of the university. This will help eliminate emotional, financial and even sexual concerns of the students and invariably reduce distress.

5. Recreational and leisure time activities like movie shows, event celebrations, excursion tours and musical concerts should be embedded in the timetable of medical students so that they can become more mentally and emotionally balanced.

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