

Stress among Medical Students

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ABSTRACT

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Various studies have documented stress among students of medicine and related professional careers like, dental, nursing, pharmacy and para-medical sciences. There are very high levels of both perceived and real stresses when compared to their compatriots in the non professional sectors. The milieu of tertiary education has always been regarded as a highly stressful environment and that too for medical students. The major stressors across the universities were academic- related issues. Among medical students, academic stressors include the volume of material to be learned, academic performance and evaluation, examinations which form a continuum throughout their course of study period of 5 years. Depression and anxiety states are not desirable events in a community. Academically less successful students reported somewhat higher levels of depressive and bodily responses. 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. 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. A system to identify the prevalence of stress in their curriculum and training should be established, maintained and updated to handle the relevant contributing factors and to control or subvert these no-desired outcomes. This knowledge can assist in instituting specific interventions for successful student management strategies in their stressful conditions.

According to Folkman and Lazarus, coping strategies can be grouped into two general types; problem-focused and emotion-focused. Problem- focused coping is aimed at problem solving or doing something to alter the source of stress. Emotion- focused coping is aimed at reducing or managing the emotional distress that is associated with the situation.

Keywords: Stress, Stressors, Coping strategies, Stress evaluation questionnaire

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INTRODUCTION

Various studies have documented stress among students of medicine and related professional careers like, dental, nursing, pharmacy and para-medical sciences. There are very high levels of both perceived and real stresses when compared to their compatriots in the non professional sectors. The milieu of tertiary education has always been regarded as a highly stressful environment and that too for medical students. The major stressors across the universities were academic-related issues. Among medical students, academic stressors include the volume of material to be learned, academic performance and evaluation, examinations which form a continuum throughout their course of study period of 5 years. Depression and anxiety states are not desirable events in a community. Academically less successful students reported somewhat higher levels of depressive and bodily responses. 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. 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. A system to identify the prevalence of stress in their curriculum and training should be established, maintained and updated to handle the relevant contributing factors and to control or subvert these no-desired outcomes. This knowledge can assist in instituting specific interventions for successful student management strategies in their stressful conditions.

MBBS study is the toughest course among all the study courses including, BCA, IAS, Engineering, or any other technical courses as quoted in the Guinness Book of World Records in May 2011. It has about 64 university examinations, 130 series examinations 174 assignment workups and an indeterminable number of interpersonal assessment situations with the teaching faculty, within a period of 5½ yrs duration with 1000+ working

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days. It is usually observed that medical students undergo tremendous stress during various stages of the MBBS course. There is a high rate of suicide among them. Stress in medical students is common and is process oriented. It is more in second and third year. Academic factors are the greater perceived cause of stress in medical students.

A minimal amount of stress is necessary to spark in a healthy competitive spirit while too much of the same can be counter-productive. Distress has been found to be associated with anxiety and depression, interpersonal conflict, sleep problems, lower academic and clinical performance. It can also decrease attention, concentration, hamper decision-making, and affect the students' abilities to establish good relationships with peers and patients resulting in feeling of inadequacy and dissatisfaction with clinical practice in the future. Furthermore, it was linked to medical student suicide, abuse of drugs and alcohol. These disturbing facts confirmed the negative association of distress with mental, emotional and physical morbidity. These invariably affect patients' lives and community's health. Therefore, early detection and intervention may prevent and minimize the ill effects of distress on such students.

According to Folkman and Lazarus, coping strategies can be grouped into two general types; problem-focused and emotion-focused. Problem-focused coping is aimed at problem solving or doing something to alter the source of stress. Emotion-focused coping is aimed at reducing or managing the emotional distress that is associated with the situation. 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 the stressor is something that must be endured. These findings prompt the requirement for higher attention to medical students during their examination period. Stress Inducing factors were divided in to 4 groups a) Academic: academic perquisites, examination & competition amongst students. b) Physical factors: hostel and canteen facilities, environmental situations, noise in classroom and library etc. c) Emotional factors: emotional comfort of student with his peers, with opposite sex in the co- educational free gender mix environment, intensified emotive personal states like love affairs, jealousy and fights etc. d) Social factors: Social aspects in the college, parental influence & socio-economic support, income differences, social prejudices etc. Stress Reducing Factors (Stress busters) on the other hand are facilitators and were divided

in to 6 groups - a) Friends, b) Gym workouts c) Physical factors d) Co- curricular activities: e) Teacher's patronage and f) Personal hobbies.

BACKGROUND

The lead article in this volume based on her study on Stress Prevalence among first year medical students of the Govt. Medical Colleges of Kerala State, India, by Dr. Sathidevi. V.K, was published earlier (KMJ2009;9(2):59-67) - Development of Medical Students Stressor Questionnaire as I part, followed here by the Validation of Medical Students Stressor Scale as II part, throws a lot of light into this unexplored areas in the medical education scenario in our state. Distribution of stressor scores as per this study: - There were 4.3% of the students with no stressor experience, 60.1% with mild to moderate stressor experience and 35.6% with severe stressor experience as compared to the phase 1 study where they were 8.7%, 80% and 11.3% respectively. The Perceived Stress among these students was 68.7% as compared to 59.3% in Phase 1, during the development of this scale. A 35% severely stress affected group of students issue a loud bell of alarm for expediting due strategies on an urgent footing.

DISCUSSION

Stress is the reaction of the body with a change that requires a physical, mental or emotional tolerance or experience by way of an adjustment or response. The term stress was first employed by the endocrinologist Hans Selve in the 1930s. It is caused by an existing stress-causing factor – stressor – which cannot be evaded but has to be faced - like academic requirements, examinations, tests and viva-voce. The emotional status of students during medical school training has been a source of concern, reported as early as 1956. It may affect the overall performance of students and lead to a cascade of consequences at both personal and professional levels. Several studies have reported significant distress among medical students, while some do not agree with this findings as well.

Although studies have suggested that female medical students are more at risk of suffering the effects of stress than men, there are no statistically significant differences between genders. Today, approximately half of all medical students are female, and there is a larger representation of women on the faculties of the schools as well. Perhaps this recent trend has alleviated some of the pressures previously experienced by women to equal, and even outperform, their male

counterparts in order to prove their worth in what were once male-dominated fields.

Western data suggest that females experience high levels of stress as compared to males, while some do not consent to, when all the factors are adjusted for gender bias. A few students do not take these stress appraisal tests even when it is protected in anonymity and get excluded from the study. It can be argued then that these groups, however small they may be, are the most stressed ones needing urgent attention. It is also noted that there is a high prevalence of anxiety and depression among newly entered students (1st and 2nd year) as compared to students who have cleared the first professional examination (3rd and 4th year), which could be due to adaptive stress of the new study environment.

Anxiety and depression has very high social and individual costs like medical school dropouts, suicide, degeneration of relationships, marital problems, low performances etc. Screening at the time of entrance with further psychiatric evaluation of all students can go in a long way to help them in adapting to stress perceived in a professional schooling environment. This is slowly getting acceptance in medical school management and establishment when done in a group exercises as a routine. It highlights the need of psychiatric counseling and support services to be made available to vulnerable students. The collective evidence of several studies of medical and other professional students over the past three decades strongly suggests that they experience high levels of stress during their training. They are most stressed by grades and performance on examinations. Increasing costs of a professional education have now added a new and very significant stressor to this scenario.

Stress was found to be more in Second and Third MBBS students rather than First MBBS levels. This was surprising as Second MBBS is generally thought to be a year where there was less stress. The truth that stress was more in Second MBBS may be due to greater fear of not attaining their goal of being a doctor. The other reason may be due to excessive load of both para-clinical and clinical subjects as compared to only clinical subjects in third year. The high stress in Third MBBS may be due to competition for the postgraduate seats. There was no difference in the stress on the basis of gender, stay in hostel, stressors, mode of travel and time spent in travel every day. Academic achievement is more important than other factors in inducing stress in medical students. Stress was more in students having more than 95% of marks at 12th Standard at the time

of medical admission as compared to all others. This confirms that students who are high achievers are more under stress. This may be due to higher parental, peer and self expectations on academic performances.

In the past, becoming a healthcare professional carried with it a sense of financial security. With increasing student debt, in conjunction with increasingly uncertain earning potential, students are concerned about their long-term uncertainties in financial security. Concurrent with this, increases in housing and the cost of living, and an increased number of students with families to support, only exacerbate the high stress levels associated with the need for financial well-being. The observations of educators suggest that medical students also have very practical fears relating to insecurities about their professional future. There is a sense of trepidation as they transition from the classroom to clinical education to residencies. Stress associated with residency choice is particularly high when they are required to do residency and service bondage after their studies.

All the stress evaluation scales follow the Likert type of graded responses with a score attached to situations from presence to absence of a variable of study. The identifiable potential stressors in student life are academic performance requirements, student relationships with faculty, patient and clinical responsibilities, personal life issues and professional identity crises situations, Political polarization and campus student politics are recent evils which has not present there in the 70s have now crept into professional colleges as well. Stress cannot be eliminated completely and hence the sessions in academics and examinations have to incorporate leisure time, more guidance and counseling services, to reduce the intensity of such stress events. 'End of course' 'make or break' examinations may be changed for shorter syllabi evaluations and mock-tests, to be grouped as credits with specific instructional objectives and added on together for a final evaluation.

STRATEGIES REQUIRED

These studies have brought to attention many of the risk factors that add to the stress levels of medical students. While many professional schools and universities offer counseling services, mentorship, tutoring services, crisis intervention, ombudsmen, and time management strategies, they are not yielding the desired outcomes. Although this may relieve some of the burden on students, it would not necessarily change the faculty-student relationship. Further studies are needed to determine the effects of curricular changes

on overall student stress levels.

Hence it is strongly felt that it is important to continue to examine the causes and consequences of stress and how changes in education, and medical practice, affect the stress levels of our students. It is also important that we openly discuss these results with students and explore ways in which we can work in collaboration to limit the factors that cause stress, decrease the negative effects that result from that stress, and provide appropriate support and treatment, the essential need for the so called stress-busters and relievers.

Stress studies done in India are mostly based on sources of stress and objective measures of stress. Therefore, the objective of the present study was to assess stress appraisal among students in stress appraisal and coping. The theoretical framework recently proposed for stress research involves a bio- psychological model which includes environmental factors and individual processes of perception and coping with stress. There is recent evidence that perceived stress among adults is associated with accumulating allostatic load which is a cumulative bio- response of chronic stress. The limitations these studies, though usually based on anonymity and self-reporting by the students themselves, are that they have a reporting bias due to the nonchalant attitude of the students, when doing the questionnaire exercises.

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.

END NOTE

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