Stress in Medical Education: a global issue or Much Ado About Nothing specific?

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Abstract

Much has been written about stress in medical education. This review reports the causes and period of stress, gender issues, coping strategies, stress management techniques and their effects. It also highlights the fact that stress may not be unique or specific to the medical profession. Perhaps it is hyped because we expect a medical student not to be affected by stress or capable of handling it. Another important factor for consideration is that since stress is reported world over it should be dealt as a global issue, with its prevention, identification and management made an integral part of the medical curriculum

Introduction

The pursuit of higher education is expected to be stressful. In this review an attempt is made to look into the relationship of stress and medical education. Many studies have shown that stress levels of medical students are genuinely high. It has been reported that between 35-50% of first year students had a higher than usual threshold score on the GHQ (Miller, 1994). Also as compared to the general population, medical students have more distress, anxiety and depression (Lloyd & Gartrell, 1984).

Is stress specific for medical students?

All students have academic pressures but not much is written about other students while there is a great deal of scientific literature on medical school stress. Some studies related to students in the fields of dentistry, law, nursing, occupational therapy, management and social work has been published (Alexander, 2001; Archer & Peters, 1986; Lim *et al.,* 2009; Kumar & Jejurkar, 2005; Agrawal & Chahar, 2007; Dziegielewski *et al.,* 2004). In a study comparing medical, law and graduate students of McGill University, it was found that medical students were not untowardly stressed but the transition of basic to clinical training was associated with stress (Helmers *et al.,* 1997).

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In fact the authors suggest that medical students have a better relaxation potential with a capacity for healthy diversion from routine. In addition they have lower achievement ethic and enjoy their accomplishment of being accepted in to a medical school. They do not aspire for new achievements and these causes are responsible for comparatively less stress in medical students. Therefore although stress during student life is universal, irrespective of the course pursued, the cause of stress may be different.

Causes of stress in medical education

Academic reasons and emotional factors are greater during the first year while reasons related to patient care and physical factors are more important in subsequent years. Long working hours, lack of peer support, competitive environment, rigid authoritative non encouraging faculty, an imbalance between professional and personal lives, lack of recreational activities, staying away from home, financial problems, residency queries, an uncertain future, emergency situations, speedy decisions, life and death issues, cultural and minority issues, mismatch between capability and expectation are some reasons of stress (Wolf, 1994; Supe, 1998).

Stress is a matter of perception, because not all are equally affected. The personality of medical students suggests that they are highly motivated, action oriented achievers, securing high grades prior to admission. They cannot tolerate feelings of helplessness, dependency

and are therefore more prone to stress or incapable of handling it. They also seem to have low self esteem, harsh self criticism, emotional instability, dependency, passivity, and self doubt, a feeling of inferiority but high aspirations and rigid standards for themselves (Bramness *et al.,* 1991; Rodolfa *et al.,* 1995). In a 5 year prospective study, students were evaluated in the first year and then in the 4th and 5th year. It was established that those students that were distressed in the beginning were likely to remain so throughout the training period (Guthrie *et al.,* 1998).

However it has also been suggested that stress in transitory, more during examinations and the students generally affected are those with a fault in their learning methods. Since the curriculum lays a greater emphasis on memory, some students find this difficult and may develop an attitude of self criticism or perfectionism. Those then with perceived mistreatment or personality deficit might be the ones unable to survive the stressful period (Wolf, 1994).

Gender differences in stress - causes and perception

Studies indicate that female medical students perceive more stress. Symptoms of depression and anxiety, interpersonal sensitivity, somatisation and neuroticism were more in women (Lloyd & Gartrell, 1984; Amr *et al.,* 2008). This may be due to a dual role that they play in society, pregnancy, stress due to loneliness, disruption of interpersonal needs and lack of interaction. However, other reports have found no sexual differences in stress perception (Forster-Williams *et al.,* 1996)

Identifying the stressful period

As expected, the first year is found to be more stressful. The reasons include academic pressure, unfamiliarity in a new environment and unrealistic expectations (Miller, 1994). Other reports have however suggested that the 2nd and 3rd year (Supe, 1998; Mosley, 1994) or even the penultimate year is stressful (Forster-Williams *et al.,* 1996). Also, perceived social support was found to be more during the 2nd year compared to the 1st year and surprisingly the psychological morbidity of the first year and fourth year has been found to be similar (Supe, 1998; Guthrie *et al.,* 1998).

Contrary to all these studies there are reports to suggest that stress is not related to any particular year (Lloyd & Gartrell, 1984).

Stress among medical students across the world

Reports from different parts of the globe have shown medical education to be stressful. An Indian study reported high neurotic traits in female medical students who had symptoms relating to obsession, hysteria, floating and phobic anxiety (Bhatia *et al.,* 1995). The Columbia experience states that on average, 10-15% students seek consultation and 1/3 need therapy to deal with conflicts in their personal life. These students have characteristics that suggest either an adjustment or personality disorder and committees like AIMS (Aid for Impaired Medical Students) help to deal with their problems (Lerner, 1995). A study in Thailand showed stress in 61.4% students, mostly in the third year, with examinations being the most important cause (Saipanish, 2003).

A comparison of different stressors in America and the West Indies on the other hand showed that apart from others, an atmosphere created by clinical professors and attending physicians, financial pressure, inadequacies of housing, were higher in the West Indies. This is expected and can be related to the resources available in a developing country (Forster-Williams *et al.,* 1996). Similar studies related to stress in medical education have also been carried out in Saudi Arabia, Australia, Iran, Egypt, Pakistan and Nepal (Abdulghani, 2008; Amr *et al.,* 2008;Bineshian *et al.,* 2009; Mouret, 2002; Sheikh et *al.,* 2004; Sreeramareddy *et al.,* 2007)

Students studying in a foreign country have problems related to adjustment in the country. These include a new cultural environment, accommodation, finance, communication, disruption of social support and along with all this, adjustment with the medical school environment. Stress is more during the first year, while adjustment was better in younger students with a positive attitude, along with support from well being committees, and correlated with their adjustment to a foreign country (Schreier & Abramovitch, 1996).

Consequences of stress

Suicide and psychiatric illness lie on one end of the spectrum. The other end is a change in lifestyle. The lifestyle changes reviewed showed a decrease in sleep, leisure and recreational activities (Wolf, 1994). The incidence of alcohol and drug consumption increases (Schreier & Abramovitch, 1996; Rathbun, 1995). The personality of an individual can change and a

decrease in human feelings or inter-personal sensitivity, aloofness with a shift to a hedonistic personality results (Wolf, 1994). The students have increased irritability, frustration, a low esteem, become cynical, disappointed, unapproachable and develop conflict with faculty and intimate relationships (Rodolfa *et al.,* 1995).

Among psychiatric illnesses, depression and anxiety are quite common. The neurotic traits of hysteria and obsession are also seen. Anxiety may lead to cognitive inefficiencies such as indecisiveness, memory impairment and excessive sensitivity to the opinion of others. (Lloyd & Gartrell, 1984; Bhatia *et al.,* 1995). In one American study it was reported suicidal ideation was seen in 11.2% students and it had a strong relationship with personal distress or burnout reported in 49.6% of students (Dyrbye *et al.,* 2008).

Coping strategies

The coping style of a medical student may vary. Emotional based coping involves accepting responsibility and self blame. This type of coping is seen more in the first year of medical school while in later years the trend is in favor of cognitive, confrontive and planful problem solving. More years in medical college perhaps gives confidence to students. They do not blame themselves, but become more cynical and aggressive. Stress is more in students who use dominant coping strategies such as positive reappraisal and planned problem solving. It is less in those who accept responsibility and least in those who escape and distance from difficult situations. It is also found that students with engagement strategy of coping are able to modify situations, resulting in a mode adaptive outcome. They have less symptoms of depression (Wolf, 1994; Supe, 1998; Stern *et al.,* 1993). Favorable results are thus available by encouraging use of engagement strategies and modifying the type of disengagement strategies (Mosley *et al.,* 1994).

Stress management

The aim should be to make the students aware of stress and its management. It is suggested that each institute should have its own orientation programme and counseling services (Rodolfa *et al.,* 1995). The work should begin from entry to a medical college. A psychiatrist or psychologist in the interview board, to screen the entrants at the time of admission is likely to help. In a survey of US and Canadian medical schools, 78% schools had a member of psychiatry faculty in the admission committee. Legislation may vary in different parts of the world, but perhaps those who need more help can be identified earlier (Willer *et al.,* 1984).

Various methods have been adopted in different institutions for stress management. These include primary preventive measures such as psycho educational lectures, seminars on stress management, and therapeutic techniques like crisis intervention and counseling (Rathbun, 1995). Since recovery from 'burnout' is associated with a decrease in suicidal ideation, it is important to identify signs and symptoms of this 'burnout', find potential factors which decrease and finally treat it (Dyrbye, 2008).

In a study at G.S. Seth Medical College in India, a 'shidori' system of stress management has been described. This incorporated many co-curricular activities that deal with topics like group dynamics, bedside manners, communication, coping skills, rational drug prescription, rational diagnostic use, time management and assertive behaviour. Stress reducing factors like role of friends, Gymkhana, hobbies and teacher's behaviour have also been evaluated (Supe, 1998). A lot can be achieved if students increase their social interaction both inside and outside the campus. A good relationship with seniors and faculty members, support from friends (buddy programmes), family and perhaps religious groups can help (Mouret, 2002). All these group activities reduce stress and improve coping.

Summary and a thought for the future

Stress in a medical school is a global phenomenon. It remains to be evaluated whether it is actually more in medical students when compared to students pursuing other degrees but with a similar financial background and personality. Nevertheless it may be useful for all medical schools to carry out screening and management programmes as part of their curriculum. It is time to make medical education interesting, restore enthusiasm in the students and to project a more realistic, humane image of the profession. This would decrease the amount of stress and its consequences. It is imperative that future physicians are healthy themselves before they treat others.

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Stress in Medical Education: a global issue or Much Ado About Nothing specific? A. S. Mahajan. Psychology. 2010. Much has been written about stress in medical education. This review reports the causes and period of stress, gender issues, coping strategies, stress management techniques and their effects. It alsoâ€¦ Expand. 26. 1. Save. Alert. Stress in Medical Education: a global issue or much Ado about Nothing specific?. South East Asian Journal of Medical Education. 2010; 4(2)9-13.Â Coping with perceived peer stress: gender-specific and common pathways to symptoms of psychopathology. Dev Psychol. 2010; 46:1605-20. [9] Mahajan, A. (2010), â€œStress in Medical Education: A Global Issue or much Ado about Nothing Specificâ€, South-East Asian Journal of Medical Education, Vol. 4, No. 2, Pp. 9â€“13. [10] Pajares F. (2002). Self-efficacy beliefs in academic contexts: An outline. [11] Sullivan, J. (2010), â€œPreliminary Psychometric Data for the Academic Coping Strategies Scaleâ€, Assessment for Effective Intervention, Vol. 35, No. 2, Pp. 114â€“ 127. [12] Yasin, M. and Dzulkifli, M. (2009), â€œDifferences in Psychological Problems between Low and High Achieving Studentsâ€, The Journal of Behavioural Science, Vol. 4, No. 1, Pp. 60â€“71. The most commonly used stress management techniques were social media usage and engaging in hobbies/sports. Conclusions: There is an urgent need for conducting screening programmes for stress in medical students and implementing measures which will equip them with skills to manage their stress.Â Mahajan AS. Stress in Medical Education:A Global Issue or Much Ado About Nothing Specific? Southâ€East Asian J Med Educ. 2010;4(2):9-13. Chronic stress among medical students affects academic performance of students and leads to depression, substance use, and suicide. There is, however, a shortage of such research evidence in Ethiopia. Objective .Â The excessive amount of stress in medical training predisposes students to be tempted to cheat on exams and to have difficulties in solving interpersonal conflicts, decreased attention, reduced concentration, loss of objectivity, increased incidence of errors, and improper behavior, such as negligence [22].Â There is also a specific usage of khat by the special section of the community: craftsmen and farmers use khat to reduce physical fatigue and traditional drug healers to heal ailments [30].