

Stress in the Medical Profession and its roots in Medical School

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الضغط النفسي في مهنة الطب وجذوره من
كليات الطب

لمك اللمكي

"How weary, stale, flat and unprofitable, seem to me all the uses of this world!" Shakespeare: Hamlet (Act 1, Scene 2)

IN THIS ISSUE OF THE MEDICAL JOURNAL, Dr. Al-Dabal and her colleagues publish a comparative study of perceived stress among female medical and non-medical university students in Saudi Arabia.¹ They investigated the difference between medical and non-medical students with respect to the prevalence and causes of stress, as well as mental and physical changes in their health. They report a statistically higher incidence of stress among the medical students compared to those in another faculty (48.6% of 319, versus 38.7% of 297) and a higher incidence of mental health problems, anxiety and depression amongst the medical students. Of possible special relevance to Oman is the finding of more underlying social problems among the medical students. While these findings may be disputed by some studies in the literature, it is by far in agreement with the majority of studies on factors affecting medical students and, in the final analysis, the medical profession. It is of significance that Dr. Al-Dabal's team recommends that there *should be* a student support committee, implying that such a committee does not exist at the University in Dammam, Saudi Arabia. Such support services are essential in an educational setting. As will become apparent in the ensuing paragraph, academic stress among tomorrow's doctors is likely to be common in this part of the world. There is also reason to suggest that academic stress may be further compounded by some social

issues that are peculiar to the region. Such issues need to be addressed.

Stress, depression and a dim view of the world around you is not an affliction limited to Shakespeare's characters or confined only to medical students, but also affects young doctors in specialty training as well as practising physicians. Stress is possibly even more widespread later in the professional life than during the student years. Dr. Al-Dabal's study indeed adds to the suspicion that the roots of high stress in the medical profession are in the medical school. A large national survey of 2,584 physicians in Canada, reported by Richardsen *et al.*², showed that both male and female physicians experienced high levels of occupational stress associated with lower levels of satisfaction with their medical practice. This study also showed that there was a sex difference in specific variables that predicted stress and satisfaction at their job.

In another study by Caplan,³ examining the presence of depression among physicians found that 27% of the sampled physicians scored in the clinical range in the indices of depression. General practitioners were more likely to be depressed than managers in the hospital setting that Caplan studied. General practitioners were also significantly more likely to display suicidal tendencies than consultants in the hospital setting (15% versus 5%). More than half of those questioned showed debilitating forms of anxiety disorders. They concluded that the levels of stress, anxiety and depression in senior doctors in the National Health Service were high, and perhaps, higher than generally expected.

In another study reported by Khuwaja *et al.*,⁴ conducted in a teaching hospital in Karachi, Pakistan, 68% of the doctors were not satisfied with their jobs and workload. Female doctors had significantly lower satisfaction with their workload. Overall, in that study, about half of the doctors endorsed the view that their jobs were marked with high to very high levels of stress and distress. Thus, the authors concluded that majority of doctors working at the teaching hospitals in Karachi had not only poor job satisfaction in their profession, but they also had high levels of job stress and its consequences.

The literature is replete with the view that higher levels of anxiety, depression and the general consequences of stress for medical professionals, compared to the general population, is the norm rather than the exception. Such a dire situation has been associated with a higher incidence of suicide compared to the rest of the population.⁵⁻⁹

The World Health Organization (WHO) estimates that stress-related disorders will be one of the leading causes of disability by the Year 2020. "Stress" has been defined as the consequence of events that are perceived as endangering one's physical or emotional wellbeing.¹⁰ Indeed, stress clearly has endangered the physical and emotional well being of physicians as discussed above, from an increased incidence of anxiety and depression to an increased incidence of suicide. The problem is compounded, of course, in medicine because doctors are a privileged group of people who can self-medicate with very little or no questions asked from the society or its members. Self-medication can lead to chemical addiction of all sorts, from the intake of just marijuana and *khat* (a stimulant drug derived from a shrub, *Catha edulis*, that is native to East Africa and southern Arabia), to "crack" and intravenous heroine.

When I reviewed the literature on the subject of stress and its consequences in the medical profession, both on physicians in practice and students in medical schools, there was remarkable similarity between the two categories thus suggesting factors that might contribute to the prevailing problem. Dahlin *et al.* have shown that first year students in medical school indicate experiencing the highest degree of pressure from their medical training.¹¹ They also compared medical to other students and found that medical students had higher depression rates than the

general student population. They also incidentally found that women students have higher rates of depression than men, and that the women reported higher levels of stress.

It is, however, very difficult to ascertain the root of stress among medical students. Firth studied 318 medical students and found higher stress levels amongst them than in other groups in the general population.¹² In this qualitative study, he found four events likely to be associated with academic stress. These included talking to psychiatric patients, effects on personal life, presenting cases, and dealing with death and suffering. Relationships with consultants raised the strongest negative feelings, students finding this particularly stressful. Clearly, most of these are peculiar to medical students and not generally found in the lives of other students. There are other sources of stress among students, prevalent in Oman and in some other Eastern cultures whereby students are pressurised by their family and community to go into medicine and "be a doctor". Unfortunately, some of these students are not interested in studying medicine, but cannot say no or resist family pressure to any extent. Naturally, these students are more likely to have problems with their studies, which in turn can have negative repercussions on their emotional well being. The academic pressures of a complex syllabus and long hours of study may further deplete their enthusiasm for their prospective career.

With respect to gender difference among medical students, the evidence is mixed. There are, however, more publications which indicate that women are more stressed.^{13,14} On the other hand, Amr *et al.* have shown no overall significant difference in perceived stress according to gender;¹⁵ however, this study did show some differences: a higher incidence of depression in females; less relationship problems with teachers, and less substance abuse among women.

The question now is how do we cope with such a predicament? Clearly, we have to accept that there is a temporal relationship between adverse experiences during student days and later professional burnout. It is well known that adverse experiences whether in medical school, or later on as a full-fledged physician, are likely to dent much needed productivity, increase the amount of sick leave, and lead to early retirement with all its attendant social and economic effects. There is

empirical evidence to suggest that the majority of prospective medical students are likely to be “Type A” personalities, a temperament known to be prone to stress because it is characterised by a poor ability to relax, coupled with a tendency to be extremely competitive and achievement oriented.

Therefore, there is an urgent need to reverse such a trend, however, this may be difficult since it can be hypothesised that the medical profession attracts people with particular temperaments that are prone to succumb to the ill-effect of stress. The sources of stress are plentiful as discussed above, including the sense of helplessness in the face of certain incurable disorders like cancer and the trauma of dealing with death and despair. Therefore, more effort should be put into helping medical personnel cope with this predicament. Mosely *et al.*¹⁶ have shown that students who employed coping efforts characterised by ‘Engagement Strategies,’ suffered from fewer depressive symptoms, suggesting that training in these types of strategies may be a useful intervention to lessen the negative consequences of stress. This has also been reported by Shanua *et al.* who showed that participation in an eight-week medication-based stress reduction intervention effectively reduced anxiety and depression and increased scores on overall empathy levels for medical and pre-medical students.¹⁷

There is no study that has documented stress in medical students or the medical profession in Oman. If the global trend exists in Oman, the question then becomes how can we reduce stress among our own medical students? Here are some of the possible panaceas to contemplate. The first one is to consider geography and social variables. We now have two medical schools in Muscat, one public and the other private. Perhaps, it would be pertinent to design a comparative study that compares the effect of private and public education at that level, as well as gender, and compare these students with non-medical students at Sultan Qaboos University and private colleges. Comparing the levels of stress between Omani medical students studying in Oman and those studying abroad may shed light on social-cultural variables that may contribute to high stress among students.

There are, however, some factors that are perhaps specific to Oman that may impact students particularly, and medical students in particular. These are the social factors. Many students studying

in Muscat are expected to go to their villages and visit their families almost every weekend and this can be a major source of stress and interfere with their academic performance. Trying to be an effective medical student, while having no opportunity to study over the weekend, is obviously a great source of anxiety for some students. In addition to this, for those students whose families are located in Muscat, there are other pressures on students such as the obligation to attend family weddings and the need for their presence during family illnesses and deaths. All of these can mean that students are required to juggle so many issues that these are likely to ‘rob’ the time required to perform adequately in their medical studies.

Perhaps a possible answer to dealing with this source of stress in Oman would be to establish two public medical schools, one here in Muscat and possibly another campus, or a separate public medical school, in an area very distant from the students’ homes such as in the city of Salalah in the southernmost Dhofar region. A provocative thought would be to suggest that each of these medical schools (and likewise in the future perhaps elsewhere too) take students from outside their own region, within a certain radius. Thus, students will be far from their homes (much like students who go abroad to study), and therefore cannot readily go to their home town over a weekend or spend an evening there. Like the students who study abroad, these students would thus be free to a great extent from the social pressures that contribute to stress and its consequences. As evidence for the potential benefits from this arrangement, we know that Omani students and postgraduate trainees abroad excel and in fact are doing very well even when compared to the local students in those countries.

It is clear that the time has come for a comprehensive cross-sectional study in Oman, preferably conducted at Sultan Qaboos University, with the inclusion of the private medical colleges, to evaluate the factors that cause stress among our medical students. SQU Medical Journal (SQUMJ) welcomes the opportunity to review such articles for publication.

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