

Effect of Stress on Medical Students

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Abstract: Stress amongst medical students is often overlooked. Intelligent students are not always the most composed. This study aimed to look at both male and female students of three different ethnic groups and the effects of stress in areas such as academic, social, financial and their everyday life. The Chinese students reported significantly less “academic stress” than the Malay students, and the Malay students reported significantly less “financial stress” compared to the Chinese and Indian students. Medical education can be a health hazard for medical students.

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A review of the literature of stress and health identified some common themes in different cultures in relation to stresses.¹ These include academic demands, personal-interpersonal issues and financial responsibilities. The effect of persistent strain and distress symptoms on students’ development into caring professionals is of question. As medical students enter the clinical years, their concerns change as they find themselves unable to apply what they knew well enough for the examinations.² Medical educators and those with responsibility for curriculum development should be more aware of the stresses of medical life and take prophylactic actions for the prevention of short and long term stress related problems for medical students. The curriculum with overload of information, and the environment presenting multiple hurdles ‘rather than opportunities for assessing progress’ are important sources of stress. Many students struggle with questions about their ability to endure the demands of education.

To this end, we studied the effect of stresses on 95 medical students in the second half (second semester) of their first year at a private medical institute (International Medical University, Kuala Lumpur, Malaysia), comparing the association with gender and ethnicity based on the Questionnaire Design, Interviewing & Attitude Measurement on the academic, social, financial and everyday life factors.³

Mean scores (+/- standard deviation) were used to compare for differences between the different variables based on ANOVA across all groups and unpaired t test between individual groups if significance were found.

Amongst the Chinese students, 29 were males and 25 were females. Amongst the Indian students, 5 were males and 4 were females. Amongst the Malay students, 4 were males and 13 were females. There were significant differences in mean stress scores between males and females as a whole or according to their ethnicity (data not shown). The Chinese students reported significantly less “academic stress” than the Malay students, and the Malay students reported significantly less “financial stress” compared to the Chinese and Indian students (Fig. 1). There were no other significant differences between the variables.

Our findings of differences in *Academic* and *Financial* events and comparable findings in *Social* and *Everyday Life* events between ethnicity may be explained by the “vulnerable student syndrome” where these students have different personalities related to their backgrounds, family difficulties, lack of social support and isolation. It is therefore not the surrounding medical environment that has influenced the students perceptions but rather matters relating to the culture and individual family settings.

It is clear that medical education is not an optimal state of health and may, in fact, be a health hazard for many young and impressionable incoming medical students.⁴ Far-reaching reforms have, therefore, been recommended to improve medical education. These reforms include enhancing the personal management skills of time management, stress management, and self-evaluation management, shifting the emphasis from passive to active and self-directed learning and placing an increased emphasis on the promotion of health and prevention of disease. Many medical curriculums are in the process of being radically changed in the light of the GMC report entitled *Tomorrow’s Doctors*.⁵ It will be important to monitor whether these changes not only result in better

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educational standards but also in less distressed young medical students. While additional research is needed to further our understanding of stress in medical students, it has become important to realize that the ‘everyday’ experiences of students in educational settings can be stressful. Programme managers / administrators and lecturing staff must be aware of this and try to minimize the occurrence of such incidents. ‘Healthy’ medical students are likely to become healthy doctors. The ways in which medical students choose to cope with the stressors of their training will eventually act as the blueprints for how they will deal with future professional and personal stresses.

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Figure 1: Mean stress scores between the three ethnicities of medical students. *<0.05; ***<0.001

