

Balancing life and medical school

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Medical school is a challenging academic experience by definition and it is one of the most stressful times of a student's life. In our experience we usually spend about 10-12 hours a day studying; not even counting the number of hours spent in lecture or other academic activities.

A typical day in the life of a first year medical student begins at 6:30 am – when the alarm clock rings and we grab a quick bite and pack 10 lbs of notes, books, and laptops, which have been sprawled all over the desk from late-night studying into the backpack.

At 8:00 am the lecture begins and the classroom is about 60% full. Latecomers slowly file into the lecture theater, while others are just waking up to the smell of coffee.

At 12:00 pm – Lunch break, an excellent opportunity to grab a free meal during a lunch-time talk in order to save a couple of dollars and maybe cram in a few minutes of studying.

At 1:00 pm – We go back to the lecture or anatomy lab to dissect cadavers.

At 4:00 pm – School day officially ends, but the real work begins.

At 4:30 pm – Study, Study and more studying!

At 7:00 pm – Dinner, where normally whatever is most convenient is first choice.

At 8:00 pm to late night - Study, Study, and more studying until you fall asleep, and do it all over again the next day.

Medical school brings all new sources of anxiety from the demanding curriculum, juggling an unfamiliar academic workload, feeling overwhelmed by the amount of information to be mastered, and the fear of taking tests because you are afraid of failure, falling behind, or simply no longer performing in the top 10% your class.¹ Another significant stressor reported by medical students is the inability to handle social issues. It can be difficult for some to balance extracurricular activities and social relationships without affecting academic performance. In addition to these stressors and a challenging curriculum, students often have poor diets, which include eating junk food during late-night studying sessions and indulging in excessive alcohol during the weekends.^{1,2}

Some argue that a certain amount of stress is necessary for medical students to perform well because more relaxed attitudes could lead to lower quality work. Despite these views, there are significant studies that illustrate the

relationship between medical school stressors and mental illness.^{1,3,4} A large multicenter study showed that 53% of US medical students met criteria for what is considered *burnout*,^{2,5} with burnout being defined as *emotional exhaustion, depersonalization, and low sense of personal accomplishment*.^{2,5} Furthermore, Dyrbye *et al.*⁵ suggests that depressive symptoms are more commonly reported by medical students and resident/fellows compared to similarly aged college graduates.⁶ Given that these studies consistently report high rates of medical student stress, mental illness, and *burnout* there is a need for intervention; yet it seems students, like physicians, are reluctant to seek care.^{4,6} Many medical students report that they prefer to turn to their families and friends for support instead of using their University's help. They are afraid of the stigma associated with mental illness and how seeking help might affect their future medical careers.⁷ Dyrbye *et al.*^{5,6} suggest a solution could be to *make a culture change where mental health is treated like hypertension or diabetes* thus removing the stigma associated with mental health.

In reviewing the article by Bitonte *et al.*,⁸ it is apparent that the authors are optimistic regarding the implementation of physical exercise into the medical school curriculum. The article does a great job of addressing the issues that are commonly experienced during medical school including burn out, the episodes of dysthymia, and even major depression. Furthermore, the article touches upon physiologic aspects such as angiogenesis and neurogenesis that are associated with exercise, which may lead to improved memory and mental illness prevention. In addition, the article demonstrates that medical students have higher tendencies toward mental health and depression issues than the general population. The statistics presented clearly illustrate that there are certain stressors experienced by medical students that make them more susceptible to depression and suicide than the general population. The article reviews data that shows that exercise is beneficial in improving mood and self-esteem, and it suggests that exercise may be a pragmatic approach toward the reduction of mental health issues within medical schools. Lastly, the article offers specific changes to the curriculum that can be implemented to bring exercise into medical school- the mandating of exercise 90 minutes a week.

While the article made well-founded arguments based on research, it did have several short-comings. Primarily, the article stated that medical students had increased *thoughts of suicide and dropping out* when compared to the general population.⁸ In our opinion, it seems that those parameters are difficult to compare between subjects. A better model-

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such as comparing students with diagnosed depression following initiation of medical school or total suicide attempts- would lead to a more objective comparison with the general population. Furthermore, medical students are more likely to have a more concrete understanding of medical terminology and pathology than the general population, and may over-interpret or circumvent questions based on that knowledge. In addition, the article made the claim that implementing physical education into the medical school curriculum would be *more cost effective than eventual counseling*.⁸ That statement appears to be very broad which makes it difficult to accept without more concrete evidence. Implementing mandatory exercise would entail hiring faculty that would develop a physical education curriculum for the medical students. Depending on what that curriculum would entail, it could substantially affect the cost of such a program. In addition, would 90 minutes of mandated exercise per week lead to a substantial difference in the students' mental illness rates if they are struggling to catch up on work to compensate for that time? Also, would that mean that certain students would not have enough time to participate in physical exercise that they enjoy? For example, if a certain student usually allocates 1 hour per night to basketball, with this new curriculum he/she may be forced to do physical activity that he/she does not want to partake in and not have enough time for physical exercise that he/she enjoys. Lastly, from our experience in medical school, there are varied levels of athletic ability between the students. What if certain students are more athletic than others and the physical education requirement would be *boring or too easy* for some of them, or on the other hand too rigorous and exhausting? For others, requiring physical activity would not only be pointless, but might make them more upset or even depressed that they

are not able to partake in activities that they used to *de-stress* previously.

As shown above, enforcing exercise in medical school would be beneficial to student health. Maintaining a healthy state of mind is essential to the medical student, yet it is difficult to achieve with the hours that each student must spend to be successful in their future careers as physicians. However, implementing such a mandatory physical fitness policy, as demonstrated by Bitone *et al.*,⁸ would be cumbersome and may result in a financial loss for the medical school. That being said, the long term mental and physical benefits that would come from exercising at least 90 minutes a week should be acknowledged by medical students. It is widely known that the health benefits of physical activity include decreased risk of coronary artery disease, decreased development of type II diabetes, and decreased rates of obesity.⁹ In addition, it has been shown that physical activity not only proves effective in reducing depressive symptoms, but may also stave off other mental health issues altogether.⁹

For medical students to receive the maximum benefit from routine exercise, we would suggest medical schools create a wellness class that would count for course credit. This wellness class would require students to log at least 90 minutes of exercise a week, record healthy eating, and other healthy habits as the semester progresses, allowing an open forum for discussion of healthy lifestyles as well as an

incentive for students to exercise and eat well. This way, students would not feel forced to exercise at a certain time, exercise in a certain way, or be pushed too hard or too little. Medical students' time is extremely valuable and by giving students free rein as to when and where they may exercise, they can choose something they enjoy at a time that works for them rather than a set time and activity allocated by the school. By making it a requirement for school credit, it is more likely that students will view it as *homework*, something they must do even if they feel that they should be studying. This will reinforce the idea that medical students should be exercising, as well as hopefully allowing time to establish exercise routines. As many medical students view seeking mental health services as stigmatized, implementing such a course into all 4 years of the medical school curriculum would be beneficial to students, both in combating current mental health symptoms as well as preventing future health problems.

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