Feature Article

Why medical school is depressing and what we should be doing about it

Minh Nguyen
Third Year Medicine (Graduate)
Flinders University

Minh has been involved with the Flinders Medical Students Society for the last two years as the Publications Officer and initiator of several student well-being activities, and currently is a member of the Expert Reference Group for beyondblue's Doctors' Mental Health Program, which provides expert stakeholder advice to beyondblue and its Advisory Committee regarding the development, implementation and evaluation of the Program.

Introduction

In recent years, there has been quite some attention given to supporting the health and well-being of doctors but less to that of medical students, particularly their mental health and well-being. [1-3] Up to 90% of medical students will need medical care whilst in medical school, and while many of these health needs may be routine, medical students are more susceptible than age-matched peers for serious mental illnesses such as depression, anxiety, substance misuse and burnout. [4,5] Preliminary data from a study last year showed that Australian medical students reported higher rates of depression, while another study estimated that one quarter of students suffered from symptoms of mental illness. [6] There is also some evidence that difficulties during medical school may manifest later in one's medical career. [7] With up to a third of hospital physicians at one point experiencing psychiatric morbidity, identifying and supporting these individuals is essential as these doctors are more likely to deliver sub-optimal patient care, misuse substances and leave the profession early. [8] This article will discuss how medical school can and does have a profound effect on our mental well-being, putting us at risk of depression, burnout and other mental illnesses.

Why are we more prone to depression and other mental illnesses?

1. Medical school is time-poor

Medical students, like doctors, tend to be notoriously bad at looking after themselves. In fact, as a broad generalisation we also have trouble managing finances, personal relationships, and other aspects of life outside medicine. This undoubtedly stems from the fact that we are extremely time-poor, medical training is demanding and the learning is infinite. There is significant pressure to succeed (from ourselves and externally) and we often enter medicine with, or subsequently develop, driven personalities to cope. Medicine often becomes our first priority as we attempt to juggle substantial study commitments, part-time work, family and social lives. When our personal lives become overshadowed by the preoccupation of studying medicine, this can and often does lead to reduced self-care and a decline in mental well-being over a gradual period of time. [9]

2. Medical school is competitive

Admission to medicine is competitive and attracts outstanding individuals. Many students are academically gifted and highly motivated. Although medical faculties encourage co-operation and collaboration amongst students, medical school remains a competitive environment, explicit or otherwise. We all know the feeling of being the only individual in a tutorial not to understand a concept, whilst our classmates do so with ease. Difficult topics that we struggle for hours to master come naturally to others, and this may be a bitter pill to swallow for many students who have been highly successful in previous academic and working lives - and as a result, a source of maladjustment. With the decreasing availability of intern and specialty training positions, competition is a very real facet of medical school, and thus an additional source of pressure on each of us to not just pass, but to excel in medicine. [10]

3. Medical culture is not supportive

The challenges of medical school extend beyond the fact that we are

time-poor and in a highly competitive environment. Medical culture itself has long supported inappropriate health-seeking behaviour, such as denial and self treatment. We are encouraged in medical school to ensure our own adequate health, but in reality, those who fail to cope with the demands are often viewed critically by fellow students for missing tutorials or clinical sessions, whether privately or openly. Additionally, there is very little scope for taking time off in an already hectic academic year, and it is common for medical students to function through illness and fatigue, particularly during examination time.

Many students accept this as the minimum; exceeding healthy physical boundaries is perceived as 'dedication to one's studies,' almost a badge of honour. As practicing physicians this culture is perpetrated. Doctors have an enormous sense of obligation to medicine, and taking time off is often seen as 'letting the team and the patients down.' Many doctors approach their work with a sense of 'collective martyrdom,' whereby it is considered normal to sacrifice oneself for ones' patients and profession. While sacrificing some things to pursue your passion is one thing, it is a different matter to lead an unbalanced, unhealthy life in the name of medicine. [9]

4. Mental illness in medicine is stigmatised

Negative attitudes associated with mental illness are a very real phenomenon in medical school. A study last year showed that a significant proportion of Australian medical students were influenced by the stigma associated with mental illness. Seventy-two percent of medical students surveyed indicated that they would feel ashamed if they had depression and 20% saw it as a 'sign of personal weakness.' [6] The fear of not being allowed to study or practice medicine is an overarching attitude that is enough to prevent many students from admitting a problem, even to themselves. This stigma is intensified by the competitive nature of medical school entry; no one wants to lose their place after working so hard for it. It thus becomes increasingly difficult for students to feel they can ask for help, with up to 50% of medical students not seeking treatment during times of need. [4,6,12]

'Self-stigma' occurs when a person internalises the negative attitudes of others and applies these to themself (such as feeling that depression is a sign of weakness because you think this is what other people believe). 'Perceived' stigma is the feeling that others hold stigmatising attitudes (for example, the irrational belief that medical school boards will persecute you if you are depressed). Both of these are widespread and reduce the likelihood of a student seeking professional help when

needed. [11] As a result, these students often receive late or sub-optimal treatment which can result in a poor prognosis or relapse. [9,11,12]

5. Medical students have poor 'mental health literacy'

'Mental health literacy' is a term used to describe 'knowledge and attitudes about mental disorders which aid in their recognition, management and prevention.' [11] Medical students generally have low mental health literacy, and experience difficulty identifying depression or other mental illnesses in themselves or other students. Even with psychiatric training, students may struggle to recognise their own symptoms because medicine is taught in the context of an external patient, rather than ourself as the patient. We travel through medical school with the erroneous belief that we are not susceptible to the illnesses about which we learn, and are unable to apply our medical knowledge objectively towards ourselves. Similarly, we may not pick up the signs of mental illness in fellow medical students, whom we see only in a social or emotional role.

In addition to this, depressive illness in medical school is often mistaken as normal behaviour associated with the 'workload.' One of the most common manifestations of depression, concentration difficulties, may cause students to fall further and further behind in coursework. These individuals, unable to recognise the warning signs, feel the need to study harder rather than taking a break, leading to the intensification of pressure and reducing the likelihood of seeking professional help. This vicious cycle, combined with very few opportunities to take time off during the academic year, can lead to rapid impairment of student well-being. [9]

The problem with medical school

Many people may not be prepared for the challenges of a life in medicine at the commencement of medical school. Medical admission committees attempt to select students who will not only make good clinicians, but will also cope well with the demands of medicine. We all remember our admission interview for medical school and being asked about 'stress' and 'coping skills.' This is a flawed process in several ways.

Firstly, most of us do not match all of the ideals of a perfect, well-balanced doctor. We may be great communicators with patients, but still be developing our personal self-care and stress management techniques. Thus, we may pass a structured interview and be admitted to medicine based on other personality strengths rather than those associated with an ability to cope with medicine.

Secondly, admission committees will admit that there is no evidence to show that interview performance correlates with actual personal qualities, including a candidate's ability to cope with stress. In reality, semi-structured interview 'performance' only allows a candidate to demonstrate some knowledge of medicine (be it actual or prepared) in a simulated interview setting. Even if the interview process did accurately select people with good general 'coping skills,' it is still almost impossible to correlate this with how well a person would cope in medicine. This is arguably something that can only be determined by time spent in the medical profession itself, due to its unique stressors. [13]

Once students enter medicine, there appears to be a gaping hole in the promotion of medical student health and well-being throughout medical school. Cursory endorsement of the local on-campus health service suffices for many medical schools, and largely leaves students to fend for themselves. As we progress, medical school teaches us to be doctors, with almost a sole focus on the acquisition of clinical knowledge and examination skills, but a seeming deficit in personal skills associated with self-care in relation to medicine. [3] Some consider this outside the scope of a medical curriculum. Others say personal development is just that – something the individual must learn themselves.

What can we do about this?

"Undertaking appropriate self-care and obtaining appropriate medical assistance when needed is considered an individual responsibility" - John Hill, South Australian State Minister for Health (personal e-mail communication, May 4, 2010). But should it be?

There is growing evidence that mental health promotion activities aimed towards 'at-risk' groups, such as medical students, are effective in increasing the awareness of mental illnesses, reducing stigma and improving student well-being (Table 1). This may help to prevent a first-episode of mental illness by improved identification and health-seeking behaviour in those that do develop mental illness such as depression. [12,14] Aiming these interventions at students during medical school can raise awareness of how common mental illness is within medicine, the stressors and risk factors unique to medicine, positive self-care measures, mental health first aid, and the support avenues that are available. Additionally, these forums are important for breaking down negative attitudes. Knowledge of these issues during the formative years of our medical careers can only benefit us as individuals and as a profession down the track.

It is encouraging that many Australian medical schools are beginning to realise the importance of this issue. Monash University has been a leader in this area, with the incorporation of a 'Health Enhancement Program' into its core medical curriculum to teach students about the relevance of mental and physical health in medicine. [15] However, in addition to activities that raise awareness, medical faculties also need to improve the delivery of support services for medical students, who have a very unique set of stressors when compared to other university students. This may include counsellors who have an understanding of the medical curriculum, teaching methods such as Case or Problem Based Learning, and the difficulties faced during clinical years. These services need to be well promoted, highly accessible and strictly confidential to protect the identity of students and to improve help-seeking behaviour. Support in the form of peer-mentoring should also be encouraged.

Student-run medical societies are also crucial. The Australian Medical

Mental Health in Medicine Seminar 2010, run by the Flinders Medical Students' Society.

Table 1. Summary of interventions to improve medical student wellbeing and health seeking behavior

Intervention/Setting	Aims	Intervention	Evaluation	Results
Health Enhancement Program (Monash University School of Medicine) Australia Evidence level: III-1* [15]	Foster behaviours, skills, attitudes and knowledge of self-care strategies for managing stress and maintaining healthy lifestyle, and understanding of the mind-body relationship.	Eight lectures on mental and physical health, mind-body medicine, behaviour change strategies, mindfulness therapies, and the ESSENCE lifestyle program, supported by six two-hour tutorials.	Depression, anxiety and hostility scales of the Symptom Checklist-90-R incorporating the Global Severity Index (GSI) and WHO Quality of Life (WHOQOL) questionnaire to measure effects on wellbeing.	Improved student well-being was noted for depression and hostility subscales but not the anxiety subscale.
Mental Health in Medicine Seminar (Flinders University Medical Students Society) Australia Evidence level: III-3*	Raise awareness of depression in medicine: stressors and risks factors unique to medicine, prevalence, positive self-care, mental health first aid, and support avenues.	Half-day didactic semin-ar discussing epidemio-logy, *stigmatising* attitudes, causes, risk factors, signs and symptoms of depression, stress management, and support avenues as a student and physician.	Pre/post intervention survey to assess changes in mental health literacy (knowledge/attitudes towards depression and help-seeking behaviour). Based on International Depression Literacy Survey.	Results pending at time of publication.
Student Well-Being Program (SWBP) (West Virginia Uni. School of Medicine) United States Evidence level: III-3* [16]	Prevention and treatment of medical student impairment.	Voluntary lunch hour lectures (six lectures over six month period) for first and second year students addressing various aspects of wellbeing.	Post-intervention questionairre distributed to 94 students assessing perceptions of depression, academic difficulties, substance abuse, health-seeking behaviour.	Participants who had one or more symptoms of impairment were more likely to feel a need for counselling and to seek help.
Physician Life-style Management Elective (Wright State Uni. School of Medicine) United States Evidence level: III-3* [17]	Enhance the quality of medical student life-planning as a future physician and prevent physician disability.	Voluntary two week elective (lectures) for first year students focusing on physician health, practice management, relationships, and physician disability.	Ratings of each didactic session were collected from seventeen first year medical students.	Students rated sessions on the residency experience highest followed by assertiveness training, then by emotional health management.
Wellness Elective (Case Western Reserve University School of Medicine) United States Evidence level: III-3* [19]	Provide students with information on wellness, stress reduction, and coping strategies.	Series of six, weekly lectures from medical and allied health professionals on wellness, coping strategies and stress reduction.	Evaluated via essay review and a questionnaire administered after the elective concluded.	Participants reported that the elective helped them realise the importance of personal wellbeing, self-care, and provided a variety of coping strategies.
Self-care intervention (Indiana University School of Medicine) United States Evidence level: III-3* [18]	Promote positive health habits and emotional adjustment during students' first semester via self-awareness and self-care interventions.	Lecture, written information, and group discussions on emotional adjustments, sleep hygiene, substance use and recognition/ management of depression and anxiety.	Survey assessing patterns of sleep, alcohol consumption, depression, exercise, caffeine use, satisfaction with teaching, social life, physical health, emotional health, finances, time management.	Promising effects on patterns of alcohol consumption, exercise and socialisation. Influenced some sleep and exercise behaviours, but not overall emotional or academic adjustment.

**National Health and Medical Research Council levels of evidence. I: Systematic review of randomised controlled trials. II: One properly designed randomised controlled trial. III-1: One well designed pseudo-randomised controlled trial. III-2: Non-randomised trials, case–control and cohort studies. III-3: Studies with historical controls, single-arm studies, or interrupted time series. IV: Case-series evidence.*

Students' Association has *focused* heavily on medical student health and well-being in recent years and has developed a policy through which medical student societies around the country are encouraged to promote student well-being. Individual medical societies are increasingly providing well-being events targeting medical student mental health. The medical society at the Flinders School of Medicine last year ran a high-profile seminar day for the medical student body *focusing* on medical student depression. Student-run well-being events were also held at several other medical schools. There is evidence that these health promotion events improve medical student awareness and health seeking behaviour, regardless of the format (didactic session, tutorial or short elective course) and thus it is now essential that all medical schools play some role in promoting student well-being. [3,16-18]

Conclusion

Many medical students appear to be happy and highly motivated. Whilst this may be true for the majority of us, there is a significant proportion who may struggle to adjust to medicine. Students are also subject to many unique stressors throughout the course of their medical education, ranging from adjusting to a high-pressure learning environment with an infinite knowledge base, to the emotional challenges of death and dying. Combined with the driven personalities that many of us bring into medicine, or subsequently develop, we tend to be an 'at-risk' group for mental illnesses such as depression, burnout and substance misuse. Medical culture must also be held at least partly responsible, having for a long time encouraged poor self-care and help-seeking behaviour. Students who struggle are seen to be weak and 'not cut out for medicine'. This culture needs to change and it is incumbent on each and every one of us to play a role in this. Whether it is by participating in a well-being event at your medical school, or by being supportive when a colleague appears to be struggling, we can all do more to ensure that our medical student body is a healthy and vibrant one.

Conflicts of Interest

None declared.

Correspondence

M Nguyen: minh.nguyen3@gmail.com

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