



## On the mental health of medical students

*“Other students’ nearly impenetrable façade fooled many until the utility knife of medical school opened it, sometimes for all to see. Some cracked and many became jaded. Relationships were lost, weeks went by with no time off even when taking time off. It took its toll and at times seemed macabre play; discussions of compassion and respect...did not include us.” (Wear and Zarconi, 2008)*

### Introduction

“You have it easy. Back in my day....,” is not an uncommon phrase to hear muttered down the hospital hallway, or reverberated through a lecture theatre when the topic of the workload and mental health of medical students arises. Behind this dismissive comment, however, lies some truth- learning conditions for medical students have improved, and there has been significant advocacy for and awareness of the mental health challenges facing students by university staff, doctors and the broader public. Though it is ‘easier’ than it was ‘back in the day’, the mental health outcomes of medical students have not changed. Globally, the rate of mental health issues is alarming, with 27.2% of medical students suffering from depression or reporting depressive symptoms, and an 11.1% prevalence of suicide ideation (Rotenstein et al., 2016). Within Australia, a survey of 1811 medical students found that one in five reported suicidal thoughts over the previous year, and 40-50% experienced symptoms of depression or anxiety above case level (Beyondblue, 2013).

This prompts the question of why improved mental health outcomes have not accompanied these positive steps forward in supporting medical students. This essay will seek to answer this question, and suggest some potential solutions.

### Why are mental health outcomes poor?

There has been exponential growth in medical understanding over the last few decades; it is estimated that the doubling time of medical knowledge in 1950 was 50 years, in 2010 it was 3.5 years, and in 2020 it is projected to be just 73 days- students who graduate in 2020 will experience four doublings in knowledge during their degree (Densen, 2011). For example, it was only 11 years ago that Yamanaka pioneered induced pluripotent stem cells, a topic which is already being taught throughout medical schools today. Whilst this wealth of empirical, reproducible data is a necessary and powerful tool for a doctor to heal to the best of their ability, its emphasis within the curriculum and teaching approach of medical school negatively influences students. It does so

by sidelining the importance of compassion and humanity, failing to recognise that the power to heal will always remain ensconced within the central, emotional truths of human existence: hope, uncertainty, suffering, weakness, and virtue. This understanding has been echoed throughout history, particularly by French phenomenologist Housset (Catherine, 2003), who says that students' comprehension of fundamental human emotions and motivations within themselves and others makes them more aware of the emotion and uniqueness of the other, and teaches them how to compassionately serve and treat patients.

It is evident that the emphasis on empirical facts has overtaken medical education- as early as 1994, the potentially harmful, widespread practise of rote memorisation was highlighted in JAMA (Regan-Smith et al., 1994), and in the 2007 Shattuck Lecture, it was pointed out that approximately 80% of medical education is focused on biology (Schroeder 2007), yet the most common difficulties doctors faced were in management of patient emotions and behavioural risk factors, which were responsible for 40% of premature deaths (Densen, 2011). Whilst the centrality of empirical facts in medical education is undoubtedly important, the predominance of that method of teaching carries risks of adverse health outcomes for students.

First, it impresses upon students a weight of knowledge they must conquer, a weight that is dually placed upon them by their superiors, as well as themselves. A review of 129 000 medical students in 47 countries (Rotenstein et al., 2016) showed that anxiety to do well, and external pressures from peers and teachers, were the two most commonly cited reasons for depression and depressive symptoms. The cause of both reasons is the emphasis on empirical learning - pressure resulting from the stress placed by academics and clinicians within medical schools on the acquisition of empirical knowledge, and anxiety resulting from the self-inflicted stress placed by students upon themselves to master such knowledge (Mennin, 2015). Whilst some may fairly argue that this bulk of knowledge simply must be learnt by students (Kwan and Mafe, 2016), there is evidence that teaching which balances learning through compassion and empirical fact leads to greater retention of knowledge, which will be explored in the next section of this essay.

Additionally, an emphasis on empirical learning removes students from the humanity of their careers, leaving them ill-equipped for the emotionally taxing medical careers that will follow. Leget and Olthuid (2007) found that medical students felt most confronted in the switch from preclinical to clinical medicine; the 'real' moral responsibility they faced, and the multidisciplinary teams that they were thrown into created a feeling of unease, uncertainty and anxiety. Whilst this problem may be solved through continuous exposure throughout their careers, it is necessary to build the tools to engage and process the emotions of patients, and accordingly, their own response to it, from medical school, which will be explored below.

## What can we do?

As the wealth of medical knowledge grows, the pressure to master, both from within students and from those around them, will only increase. Its sheer magnitude may also chronically inflame its importance within medical school education, further removing students from the humanity of their service and worsening mental health outcomes. Consequently, it seems necessary to re-emphasise the importance of humanities within the education of medicine. If implemented thoughtfully, mixing humanities within medicine can both improve the mental health outcomes of students, as well as helping foster the development of a more compassionate and skilled generation of doctors. In fact in 2003, a theme edition of *Academic Medicine* on medical humanities concluded that it had a mix of both psychological and educational benefits- it helped improve exam performance (Montgomery et al., 2003), develop moral imagination (Coulehan et al., 2003), foster a healthy, self-reflective disposition (Jones and Carson, 2003), and engender empathy (Hawkins et al., 2003).

One successful Australian project is 'Grace Under Pressure', a series of applied theatre workshops which help students develop interpersonal and professional skills to deal with challenges in the health-care setting. Piloted in 2015, the program invited participation of students who were experiencing mental health issues due to workplace bullying or anxiety in their social skills with patients. Over 90% found the sessions not only helped alleviate their concerns and better express their own emotions, it also improved their clinical practise by teaching them about status dynamics and empathy (Scott et al., 2017). Similar projects in medical humanities across Australia and the world have also proven powerful; Melbourne University students are observing art pieces portraying mental illness and grievance at the Ian Potter Museum to expand their moral imagination (Gaunt, 2016), and students at UC Irvine who undertook literature in medicine classes showed significantly improved mental health outcomes compared to those who did not (Shapiro et al., 2004).

In an attempt to re-balance compassionate learning with empirical learning, another successful program has been investigating the impact of integrating physical examination teaching with empathic principles. Rather than learning musculoskeletal examinations on paper or one another, students learnt with real patients. The patients were able to show students where and how their condition affected them, give a first person recount of their individual experience, and allow students to practise their examination skills on them (Sayma and Williams, 2016). They found not only an improvement in the empathic skills of students, but also that they tested higher in their retention of the specifics of the disease and the musculoskeletal examination. Such schemes equip students not only with better knowledge, but a more empathetic manner that prevents them

from the psychological effects that working within such an emotionally demanding field may result in. Similar initiatives, such as self-reflective portfolio writing and interactive sessions on the psychiatry of grief, have shown to make students feel more emotionally equipped for their internship year (Shapiro et al., 2004).

## **Conclusion**

As of 2011, over half of the medical schools in the United States required a course in 'humanities in medicine'. Increasingly, learning which incorporates the humanities is being heralded for its ability to counter-balance the empirical, knowledge based focus of medicine. Whilst a thorough understanding of the science behind medicine is extremely important, over-emphasis on it can negatively influence the mental health of students, creating unnecessary and harmful internal and external pressures on them and failing to equip them for the emotionally taxing career that lies ahead of them. It is through the window of compassion and humanity that we can appreciate the art of medicine, and begin to change the culture of poor mental health outcomes within medicine.

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