

Investigating the stressors and coping mechanisms of students in medical school: A qualitative study

Dear Editor,

Medical school can be a stressful experience for students, with burnout being increasingly common.¹ Stressors in medical education include a heavy academic workload, pressure of good academic performance, and comparison with peers of high aptitude.² Stress can be either beneficial or detrimental to development, depending on personal regulation and coping mechanisms.³ Consequences of poor coping include mental disorders, substance abuse, dropping out of school, and self-harm.⁴ Furthermore, poor coping in medical school often carries into working life as a junior doctor, with the risk of physician suicide being higher than the general population.⁵

Most studies on coping in medical school focus on the quantitative causes rather than qualitative journey of students. Our study fills this gap by holistically characterising the perspectives and lived experiences of students in a medical school in Singapore, investigating stressors along with cognitive, affective, and behavioral coping mechanisms.

Eleven in-depth interviews were conducted with participants from the Yong Loo Lin School of Medicine, National University of Singapore through recruitment by purposive sampling. Recruitment proceeded until content saturation was reached when no further themes emerged from the interviews.^{6,7} Open-ended questions were asked and revolved around participants' academic, social and personal experiences in medical school, their coping with stress, and the effects of stress on their lives (Supplementary Materials, Appendix A). The interviews were transcribed and analysed by 4 independent authors using an interpretative phenomenological approach, where inquiry was grounded in the tacit knowledge of participants who constructed meaning from their experiences.

"It's an information dump, and there's always the question of: do I really need to know this?" (Participant 9)

In pre-clinical years, participants grappled with a heavy academic workload and a lack of knowledge boundaries. Despite being academically excellent, participants felt overwhelmed and insecure about their academic abilities. The ambiguity of the extent and scope of the curriculum resulted in participants being unable

to identify what is important, and over-compensating by studying as much as they could. The Pass/Fail system implemented to reduce fixation on grades paradoxically caused even more stress due to uncertainty over academic standing.

Participants struggled to form supportive and dependable relationships in medical school as structured social systems were randomly allocated, often being "luck of the draw". Those who did not come from predominant junior colleges were disadvantaged and took more time to fit into the new community. Participants kept their struggles to themselves, with a few admitting to not coping well in school. There was the pressure to appear invulnerable to be socially accepted; hence they were not proactive in seeking help. Authority figures like the faculty or the school's Student Affairs were avoided as they were perceived to be bureaucratic and impersonal.

In clinical years, a surge in demand was placed on the medical knowledge of participants, who felt unprepared to step up as future doctors. The metaphor of a "shortened runway" was used to describe the limited time participants had to master all the knowledge and skills required before graduation, given restrictions imposed by COVID-19. Many felt burnt out by long hours of clinical training and studying, leaving little time to spend with family or explore passions outside of medicine.

"Once adapted, I have to adapt again." (Participant 4)

Participants had to adjust from campus-based to hospital-based learning in clinical years, where they attended ward rounds, observed surgeries, and sat in for clinics. However, many felt like they did not know their "place" in different hospital settings and within the medical team. The frequent changes in clinical postings to different departments in different hospitals resulted in the need to constantly adapt. Moreover, participants grappled to adjust their learning style from information acquisition in pre-clinical years to information integration in clinical years, where they had to apply theoretical knowledge on real-life clinical scenarios on patients.

Both positive and negative role models were pivotal in shaping the clinical experience of participants. Doctors who ignored or failed to engage made participants feel

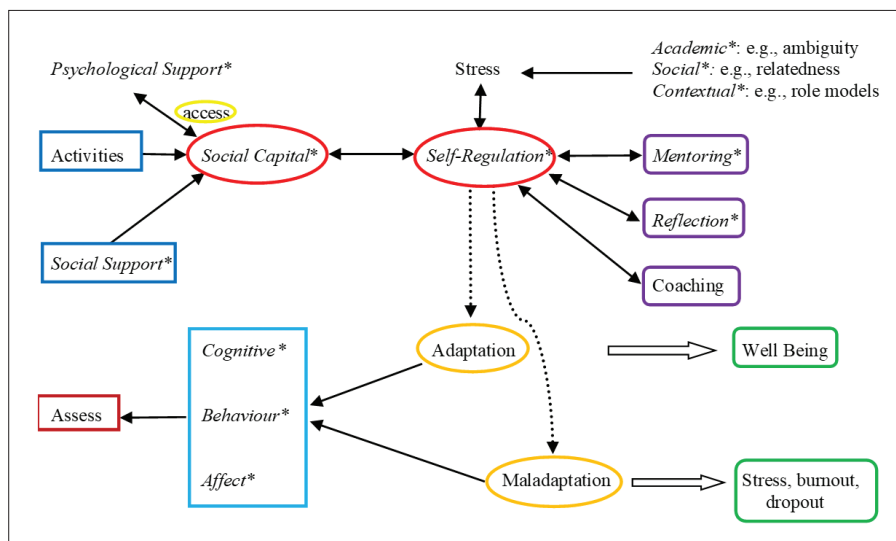


Fig. 1. Schema encapsulating key issues surrounding the stress that student participants faced, and their self-regulation and adaptation.

* Indicates areas where the students can be helped.

demoralised and invisible, while doctors who showed them the ropes and were patient made them feel inspired and driven. Nearly all participants expressed a deep desire to be mentored. However, this was unable to be fulfilled due to the faculty's busy schedule. In addition, mentorships were perceived to be academic and professional in nature, with few participants approaching mentors for personal issues.

"...I felt like a parasite feeding off patients' suffering."
(Participant 6)

While patient interaction taught participants empathy and gave fulfilment, many were affected by the trauma they witnessed, as they did not know how to deal with difficult emotions that arose—some of these included helplessness, isolation and guilt as participants felt responsible yet unable to alleviate the suffering of patients. Participants were not guided to reflect on these experiences, resulting in missed opportunities for self-development and professional identity formation.

Participants responded to stressors via various cognitive, affective and behavioral adaptations modulated by their intrinsic dispositions. Cognitive strategies included reframing negative thoughts into positive ones, reconnecting to one's sense of purpose, metacognitively reflecting on their difficult experiences and journaling. Affective strategies included motivating themselves to stay hopeful and optimistic. Behavioral strategies include voicing out struggles and reaching out to seek psychiatric help, counselling or sharing their struggles on social media. Participants who were able to tap on negative

experiences to help others or continued to engage in hobbies coped better. All of these contribute to social capital. A framework linking the sources of stress, self-regulation and social capital was proposed (Fig. 1). Adaptation to stress requires self-regulated thoughts alongside planned feelings and behaviors cyclically adapted with reflective practice. Mentors play a key role in this process through guidance and positive role modelling.

As educators, it is vital to understand the medical school journey, its concomitant challenges and students' coping mechanisms to guide students through their formative years of medical education. The end-goal of medical school is to nurture students into competent doctors who possess resilient minds and a strong sense of purpose. It is hoped that the insights gleaned from studying stressors in medical school and identifying positive adaptive behaviors can benefit future students in navigating their own medical school journeys. Future direction for supporting students through medical school may focus on professional identity formation and fostering more effective student-mentor relationships.

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