

A Cross-Sectional Study Investigating the Tools and Resources Australian Medical Students Used to Support Their Mental Health During Covid-19

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Abstract

Background

The mental health of medical students is notoriously poor, and with the additional challenges posed by the COVID-19 pandemic, there has never been greater concern for the wellbeing of the current cohort. This cross-sectional study investigates the impact of lockdown coping strategies used by Australian medical students during the COVID-19 pandemic on their mental health improvement, including connecting with family and friends, exercise, using social media, and various other interests.

Methods

An anonymous questionnaire was shared in 2021 with medical students from all years via Facebook and General Practice Student Network's communications during the COVID-19 pandemic. The impact of a variety of lockdown coping strategies utilized by participants was assessed using SPSS.

Results

There were 283 participants in this study, 69.6% of whom were females, 54.9% in their pre-clinical years, and 70.5% between the ages of 18-24. The results showed that nearly 80% of participants credited their mental health improvement to peri-lockdown strategies. The logistic regression analysis demonstrated that reading (non-medical books) and spending more time with family were the most notable peri-lockdown strategies associated with mental health improvement. Interestingly, some participants reported that some coping strategies decreased productivity, including TV shows and movies.

Conclusions

Our study found that lockdown coping strategies played an essential role in the improvement and maintenance of medical students' mental health during the COVID-19 pandemic. In particular, strategies that allowed students to socialize and engage in non-academic activities allowed them to cope with mental stressors more effectively.

Keywords: Covid-19 Interventions, Medical Student Mental Health, Study Breaks, Coping Strategies, Mental Health

1. Introduction

Medical students have historically experienced poorer mental health outcomes than the general population. They have consistently shown higher rates of depression, anxiety and stigmatisation, and are less likely to seek help than their peers [1]. Factors which contribute to a medical student's stress load include time and performance pressures that emerge from high coursework, and study demands alongside long clinical placements hours [2,3].

A lack of appropriate support and unaddressed poor mental health can result in high rates of burnout, substance abuse and suicidal ideation in students [1]. The COVID-19 pandemic has shown to have worsened existing mental health conditions making medical students an especially vulnerable population [4]. Cancellation of in-person classes resulted in a loss of peer interaction and social connectedness in medical students; many students also faced financial strain due to the reduction in part-time work availability [5]. Pausing clinical placements reduced bedside teaching opportunities and clinical experience. For medical students who continued with clinical placements, the lack of adequate personal protective equipment (PPE) and risk of COVID-19 exposure carried additional anxiety and uncertainty [6].

As the effects on the pandemic continue to endure into the foreseeable future, it is becoming ever so important to monitor the mental wellbeing of medical students and determine the future prospects of coping strategies medical students can benefit from in the long run. This study attempts to shed light on the impact of various peri-lockdown coping strategies used by students and whether these coping strategies played a role in supporting (or worsening) the mental health of students during the pandemic. Thus, it will provide medical faculties with a clear picture on how to tailor support for students' mental health.

2. Materials and Methods

Objectives: We aimed to investigate the perceived impact of various coping strategies such as exercise and social media utilised by Australian medical students on their mental health during the COVID-19 pandemic.

Design: A cross-sectional mixed-method study

2.1 Participants

283 Students currently enrolled in Australian medical programs from 21 different institutes were recruited for the study in 2021. Recruitment was performed via social media groups on Facebook and General Practice Student Network communications. The primary inclusion criteria was experience of a "lockdown" period, defined as a period of time wherein individuals were only permitted to leave their home for essential reasons.

2.2 Sample Size Analysis

According to the Medical Deans 2019-2020 Student Statistics Report, there were 17,752 total medical students enrolled in

Australia in 2020. Therefore, the population size of this research is 17,752 people. Using the Australia Bureau of Statistics sample size calculator, for a confidence level of 95%, a confidence interval of 0.05 in a population of 17,752 people, we required 377 completed responses from participants.

2.3 Data Collection

Participants received the study information sheet and consent form (see Appendix B) via email or via message through their social media accounts. They were then given 2 months, between June to August 2021, to complete a Google Forms survey, comprising 17 questions pertaining to their mental health experiences during COVID-19 lockdowns (survey questions available from Appendix A). The survey included both open and closed-ended questions, which were self-developed and pilot-tested with a group of 20 participants, and included both multiple choice and short answer formats.

Participation was strictly voluntary: all participants were informed of their right to withdraw from the study at any point in time prior to submission of the survey. Incomplete survey responses were not able to be submitted, and thus excluded from data analysis; survey completion therefore implied consent. Responses were de-identified thereafter to preserve confidentiality.

2.4 Data Analysis

The independent variables included age, sex, mental health condition status, number of coping strategies employed, type of coping strategy, persistence of coping strategy post-lockdown and change of coping strategy between lockdowns. The dependent variable analysed mental health improvement over lockdown.

Analysis of prior mental health condition status was required to establish a baseline before employment of intervention strategies [7]. The use of multiple coping strategies has been suggested to improve mental health during COVID-19 which invited analysis of the number of strategies employed by participants [8]. The type of coping strategy/strategies used was also of significance, as a wide range has been reported throughout COVID-19, encompassing reading, talking to friends on social media, family support, personal development, cooking and drawing [5,9-11]. Analysis of the persistence of each coping strategy's use post-lockdown, as well as the change in coping strategy use between lockdowns, was also undertaken. These variables are markers of each strategy's contribution to individual resilience and post-traumatic growth through their lockdown experience and provide insight into the long-term efficacies of each strategy [12].

Analysis of participants' mental health improvement over COVID-19 lockdown allowed for assessment of the overall efficacy of the coping strategies in allowing medical students to strengthen their resilience and improve their overall mental health [12]. This information can thus better inform faculty support for medical students' wellbeing.

2.5 Quantitative Analysis

Survey data was analysed using the Statistical Package for Social Science (SPSS) version 28.0.0.0. This involved performing descriptive analysis of survey results, and logistic regression of the predictors of mental health improvement (age, sex, mental health condition status, number of coping strategies employed, type of coping strategy, persistence of coping strategy post-lockdown and change of coping strategy between lockdowns) after interventions.

2.6 Qualitative Analysis

Survey data was analysed thematically: open-ended responses from survey questions (Q10,11,13-17, see Appendix A) were annotated for keywords. Subthemes and themes were processed iteratively using spreadsheets and mind maps until themes were well-defined and apparent with any discrepancies involved. 3 independent researchers conducted analyses independently and then collaboratively until consensus on key themes was achieved.

2.7 Ethical Considerations

Ethics approval was received from the Bond University Human Research Ethics Committee (Ethics Application Number: [AY0020]), and the procedure was conducted in accordance with the principles designated by the Declaration of Helsinki. Participants were informed that the survey may be distressing to individuals who struggled with mental health during the COVID-19 pandemic, and that they retained the right to freely withdraw from the survey at any point in time prior to survey submission. Emergency help numbers were provided on the consent form and on the bottom of the survey. Participants were also informed of the anonymity and confidentiality of their responses.

2.8 Data Management & Sharing

All data was kept anonymous and confidential to the primary investigators and only involved the use of Excel and SPSS to analyse the statistics from the survey responses. All data was stored in the secure Bond University Network and will be deleted after five years.

3. Results

While 321 students responded to the survey, 38 of them did not experience any lockdowns and were thus removed from the study as per the inclusion criteria. This resulted in a sample size of 283.

A total sample size of 283 participants from 21 institutes was obtained. A variety of states were represented in this study. Notably, most participants were from Queensland (96, 33.9%) and New South Wales (71, 25%).

Table 1 depicts the demographic characteristics of participants in this study. Most participants were female (204, 72.1%), and most were 18-24 years old (187, 68.8%) followed by 25-30 years old (73, 26.8%). Slightly more than half were in the pre-clinical years of their medical degree (156, 55.1%). Pre-clinical years refers to the years of medical school where students have not yet commenced their clinical placements, usually in the first and second year of the degree. The majority of individuals did not have any diagnosed mental health conditions (211, 74.8%). As shown in Table 2, many participants utilised 5-7 different coping strategies (140, 49.5%). The highest number of coping strategies used by a person was 15. The most commonly used coping strategies were exercise/sports (228, 80.6%) and watching movies/TV shows (226, 79.9%). Spending more time with roommates (67, 23.7%), spending more time with pets (79, 24.7%) and arts and crafts (75, 26.5%) were the least popular coping strategies. Most participants experienced multiple lockdowns (273, 96.8%) but did not change their coping strategies between lockdowns (169, 59.7%). Mental health after using coping strategies was mostly much better (131, 46.6%) followed by somewhat better (88, 31.3%) and no change (62, 22.1%). 261 (92.2%) people are still utilising their coping strategies. The median length of lockdowns experienced by individuals was 58 days with a minimum of 3 and a maximum of 262.

Age (years)	n (%)
18-24	187 (68.8)
25-30	73 (26.8)
31-40	11 (4.0)
41+	1 (0.4)
Sex	
Male	79 (27.9)
Female	204 (72.1)
Stage of study	
Pre-Clinical	156 (55.1)
Clinical	127 (44.9)
University	
Queensland	

Queensland	96 (33.9)
New South Wales	71 (25)
Melbourne	58 (20.0)
Tasmania	10 (3.5)
Australian Capital Territory	28 (9.9)
South Australia	11 (4.0)
Western Australia	9 (3.0)
Has mental health condition	
Yes	71 (25.2)
No	211 (74.8)
	Median (min, max)
Length of state lockdown (days)	58 (3, 262)
Total coping strategy number	n (%)
0-4	65 (23.0)
5-7	140 (49.5)
8-15	78 (27.6)
Exercise/sports	
No	55 (19.4)
Yes	228 (80.6)
Board games/puzzles	
No	191 (67.5)
Yes	92 (32.5)
Reading (non-medical books)	
No	186 (65.7)
Yes	97 (34.3)
Met up with friends in-person	
No	88 (31.1)
Yes	195 (68.9)
Met up with friends virtually	
No	88 (31.1%)
Yes	195 (68.9%)
Used social media to meet/make friends	
No	186 (65.7%)
Yes	97 (34.3%)
Spent more time with family	
No	154 (54.4)
Yes	129 (45.6)

Spent more time with roommates	
No	216 (76.3)
Yes	67 (23.7)
Watched movies/TV shows	
No	57 (20.1)
Yes	226 (79.9)
Spent more time with pets	
No	213 (75.3)
Yes	79 (24.7)
Learned new skills	
No	192 (67.8)
Yes	91 (32.2)
Arts and crafts	
No	208 (73.5)
Yes	75 (26.5)
Cooking/baking	
No	168 (59.4)
Yes	115 (40.6)
Cleaning	
No	195 (68.9)
Yes	88 (31.1)
Other	
No	243 (85.9)
Yes	40 (14.1)
Experienced multiple lockdowns	
Yes	273 (96.8)
No	9 (3.2)
Changed coping strategy between lockdowns	
no change	169 (61.9)
mild change	70 (25.6)
significant change	34 (12.5)
Mental health after using coping strategies	
No change	62 (22.1)
Somewhat better	88 (31.3)
Much better	131 (46.6)
Binary Mental health after using coping strategies	
No change	62 (21.1)
Somewhat better/much better	219 (77.9)
Still using coping strategies	
No	22 (7.8)
Yes	261 (92.2)

Table 1: Demographic characteristics of participants

Variables		Mental Health Improvement OR (95% CI)		
Age	18-24	1		
	25-30	1.49	(0.641	-3.465)
	31-40	1.695	(0.243	-11.838)
Sex	Male	1		
	Female	3.862**	(1.622	-9.192)
Length of state lockdown (days)		1.000	(0.993	-1.006)
Has mental health condition	No	1		
	Yes	1.786	(0.803	-3.971)
Total coping strategy number	0-4	1		
	5-7	0.607	(0.164	-2.244)
	8-15	0.231	(0.018	-2.982)
Exercise/sports	No	1		
	Yes	1.364	(0.500	-3.719)
Board games/puzzles	No	1		
	Yes	1.138	(0.439	-2.951)
Reading (non-medical books)	No	1		
	Yes	3.404**	(1.465	-7.907)
Met up with friends in-person	No	1		
	Yes	0.896	(0.348	-2.309)
Met up with friends virtually	No	1		
	Yes	0.823	(0.325	-2.085)
Used social media to meet/make friends	No	1		
	Yes	2.536*	(1.020	-6.309)
Spent more time with family	No	1		
	Yes	4.272***	(1.857	-9.829)
Spent more time with roommates	No	1		
	Yes	0.954	(0.385	-2.361)
Watched movies/TV shows	No	1		
	Yes	0.659	(0.237	-1.835)
Spent more time with pets	No	1		
	Yes	2.022	(0.717	-5.698)
Learned new skills	No	1		
	Yes	2.283	(0.844	-6.176)
Arts and crafts	No	1		
	Yes	0.522	(0.195	-1.398)
Cooking/baking	No	1		
	Yes	0.554	(0.236	-1.298)
Cleaning	No	1		
	Yes	1.729	(0.665	-4.495)
Other	No	1		
	Yes	0.350*	(0.125	-0.984)
Still using coping strategies	No	1		
	Yes	2.151	(0.587	-7.881)

Changed coping strategy between lockdowns	No change	1		
	Mild change	2.181	(0.802	-5.933)
	Significant change	4.403*	(1.136	-17.073)
X2		63.990***		
R2		34.4%		
*p<0.05, **p<0.01, ***p<0.001				

Table 2: Coping strategy usage among participants

3.1 Prediction of Mental Health Improvement by Determinants

Logistic regression analysis in Table 2 demonstrated that the sex of participants, reading (non-medical books), spending more time with family, utilizing other coping strategies not listed in the survey, and significantly changing coping strategy between lockdowns were all significant predictors of mental health improvement. All other variables were insignificant. Certain variables such as university, stage of studies and experienced multiple lockdowns were unable to be included into the analysis due to inadequate subgroup sample sizes. The model could not be fitted because the number of observations was less than or equal to the number of model parameters.

Females were more likely than males to experience mental health improvement after utilising coping strategies (OR=3.404, CI=1.465-7.907, p<0.01). Coping strategies including reading non-medical books (OR=2.422, CI=1.114-5.265, p<0.05) and spending more time with family (OR=4.272, CI=1.857-9.829, p<0.01) significantly improved mental health. However, utilising other coping strategies not listed in the survey was associated with a lower likelihood of mental health improvement (OR=0.350, CI=0.125-0.984, p<0.05). Out of the 40 people that utilised other coping strategies not included in the survey, 15 people reported playing video games and 7 people reported using meditation/mindfulness.

Those who significantly changed their coping strategies between lockdowns were 4.403 times (CI=1.136-17.073, p<0.05) as likely to have mental health improvement compared to those who did not change their coping strategies. However, no significant differences were found between mild change and no change. Overall, the predictors account for 34.4% of the variance in mental health improvement.

3.2 Emergent Themes

4 major themes were identified in the responses of participants.

Theme 1: Feelings before and after Coping Strategy Implementation

Before the employment of coping strategies, lockdown tended to induce feelings of anxiety, boredom, loneliness, depression, sadness, stress, demotivation and isolation. However, a small portion reported already feeling “pretty good”, citing it suited their

personalities or allowed them to enjoy personal time.

‘Like a couch potato, like I’m wasting away and days pass without anything memorable happening.’

Coping strategies vastly improved mental health and provided peace and clarity to individuals (n=145, 46.9%).

“Alone, sad, anxious” → “Relieved, clear-headed”

“Baseline mood fairly low, dejected, helpless” → “Calmer, more at peace”

However, for some these improvements were more limited and merely reduced the negative impacts of lockdown (n=98, 31.7%). Equally, others mentioned that their mental health was only temporarily better and coping strategies acted more as a distraction.

“Burnt out” → “Burnt out but at least not bored”

A small but significant portion did not experience any improvement at all (n=66, 21.4%). Participants reported feeling “no change”, “neutral” or “similar” after coping strategy implementation. Slight or no improvements appeared to be especially prevalent in those with pre-existing depression or sadness.

‘No different, these activities were simple escapes and I do not have family or friends to contact or “hang out with” in my current location’

Theme 2: Numerous Benefits of using Coping Strategies

Participants utilised exercises and workouts to maintain physical health and strength. Fitness goals provide focus to individuals and distract them from the impacts of the pandemic. Participants found that the activities helped them to ‘recharge’ giving them ‘new focus and purpose’

‘I got in to running with a friend who lives in my 5km radius, and we worked towards goals such as running a 10km fun run which helped me to take my mind of (sic) the situation’

Moreover, mindfulness and wellbeing-focused exercises helped many feel less stressed and led to overall improved mental health.

‘Walking and listening to podcasts helped me to practice mindfulness and stay calm’

Equally, participants enjoyed exploring new hobbies and challenging themselves to produce excitement and a sense of

accomplishment. Individuals were able to regain control in life and their perspectives were broadened beyond medicine and COVID-19.

'...accomplishment for creating something, sometimes emotional release...was difficult to do often though because it requires some level of inspiration first'

Social coping strategies provided a method to combat loneliness and boredom which was an important aspect for many participants. Lockdowns offered participants more time to spend with family and roommates.

'...calling friends on discord (sic) almost daily was wonderful for connection, jokes and keeping tabs on each other. Spending time with family helped with connection and understanding each other'

Theme 3: The Disadvantages and limitations of Coping Strategies

While coping strategies offered a variety of benefits, they also produced negative consequences. Lack of physical intimacy and interaction was a common problem experienced, with many stating that virtual contact could not match the joys of face-to-face meetups. Online calls to friends & family overseas made some people more homesick.

'Talking does not have the same impact as an in-person catch up.'

The excessive use of computers and online platforms to communicate also led to higher screen time and eye strain. Many individuals got bored of their hobbies which became repetitive and required more motivation to perform.

'TV and movies caused further eye strain on top of Zoom. The board games were short-lasting. They initially were fun and everyone was interested. But the novelty wore off and we stopped playing board games.'

Excessive sedentary activities and the closure of gyms during lockdowns limited the ability of some people to maintain their physical health and weight. While many people still performed exercises at home, they were not as effective as going to the gym.

'Type of exercises were limited as gyms weren't open. Wasn't able to see friends at all. Spent too long watching TV and movies to distract myself from other things.'

Coping strategies, such as TV shows and movies, distracted some from work and other errands, leading to decreased productivity in some cases.

'Found it hard to separate work and home life, I probably procrastinated more'

Theme 4: Changes in Coping Strategies between Lockdowns

The majority of participants did not change their coping strategies between lockdowns (n=200, 65.1%), usually due to the effectiveness of existing strategies.

'The strategies worked, so didn't really change'

A large proportion of participants that changed their coping strategies mentioned that they stopped enjoying games or online calls with their friends as lockdowns progressed.

'Online communication is tiresome'

'Less keen to put in the effort to engage with people online/phone/video'

Some tried new strategies due to the monotony and repetitiveness of previous activities. The mental burden of prolonged and multiple lockdowns required a larger variety of coping methods.

'Got more inventive or exploratory as lockdown dragged on and became very monotonous'

'The second lockdown was much harder and I had to resort to a wider variety of coping mechanisms'

A key to many changes was the realisation that the lockdown would be more long-term. A number of individuals refined their lockdown routines to be more streamlined and productive, focusing on long term academic and physical goals rather than short-term pleasures.

"They changed because I was craving more long term hope and stability. Having more purposeful goals allowed me to see a greater progression and reward for my efforts over time, and meant I always had something to turn to for using up my time while in lockdown."

A small number cited financial reasons for change as they could no longer afford the equipment and resources required for their hobbies.

"As a full time student I don't have the income to indulge in many hobbies and interests."

4. Discussion

Overall, utilising coping strategies vastly improved mental health for 46.3% of participants, and mildly improved it for 31.1%. Only 22.1% of individuals did not experience any improvement. Being female, reading (non-medical books), spending more time with family, and significantly changing coping strategies between lockdowns were all associated with mental health improvement during logistic regression analysis. This was somewhat reflected in the qualitative analysis which showed that the majority of students found existing strategies effective and did not require any drastic change in coping strategies in periods of longer lockdown. Instead, many found that resetting and refining coping strategies to be more streamlined and productive with more "purposeful goals"

of long term academic and physical goals worked better as coping strategies.

Numerous previous studies support the importance of reading for pleasure in the improvement of mental health outcomes. A 2022 study found that reading stories significantly improved the mindfulness, happiness and optimism of students while reducing depression, pessimism and anxiety [13]. Berns et al performed functional MRI on novel readers and found increases in neural connectivity that allowed the reader to be placed in the protagonist's body [14]. Reading exposes individuals to alternative worlds which may divert attention away from the stresses of the pandemic [15].

Equally, spending time with family members is crucial in maintaining mental health. A 2022 study showcased that providing flexible work schedules and allowing increased family time improved job satisfaction and mental health outcomes [16]. Many participants in our study mentioned that lockdowns offered them more time to spend with family and roommates which supported them emotionally during the pandemic. Another cross-sectional study found that possessing social support was one of the most significant preventers of psychological distress in Australian undergraduate medical students [10]. Females were also found to experience significantly more mental health improvement post-utilisation of coping strategies in comparison to males. This is consistent with a 2007 study which emphasised that despite women reporting greater levels of stress than men, they tend to use adaptive coping strategies, whereas men tend to use maladaptive and avoidance strategies [17].

While insignificant in the logistic regression analysis, physical activity was the most common coping strategy utilised by participants according to the survey (259, 81.2%). Numerous participants commented on the benefits of physical activity for improving both their fitness and mindfulness. Many also exercised with friends which improved social health and allowed more effective fitness goal setting. A 2021 study found that outdoor activities such as exercising and gardening were associated with mental health improvements during COVID-19 [18]. Exercising and having social support networks also relieved stress and led to higher quality of life in American medical students [11].

4.1 Implications

Investigation of the resources medical students utilize in supporting their mental health provide insight into the coping strategies relied upon the most during stressful times such as the COVID-19 pandemic. This information can be used by universities and mental health support services to help tailor specific interventions to better support students. More specifically, as reading non-medical books and spending more time with family have been associated with improved mental health in this study, measures that encourage students to read and improve their access to a wide range of free

books should be considered. Students can be encouraged to read or join a book club in their spare time. More specifically, faculty-organised extracurricular activities, mental health support and wellness programs may reinforce the importance of bonding with family and friends. Medical faculties could also play a role in initiating a book exchange program between students. Students can be encouraged to continue using their coping strategies even when there is no lockdown, and to think about how their strategies can be improved to optimize mental health outcomes.

4.2 Limitations

A limitation of the study was the participant sample size. A definitive response rate could not be deduced due to the method of social media recruitment. Consequently, the survey cohort may not have been representative of the general medical population. As this was a cross-sectional study, the ability to generate causation was limited.

In addition, certain key coping strategies such as playing video games and meditation were omitted as options in the survey. Certain variables that were included in the survey such as university, stage of study and experienced multiple lockdowns were unable to be incorporated in the logistic regression analysis due to insufficient subgroup sample sizes. Overall, the predictors accounted for only 34.4% of the variance in mental health improvement, meaning that there was a significant amount of variance that remained unexplained. Mental health and mental health improvement was measured by asking self-reported questions, which could have been improved by utilising a valid scale or scoring system.

4.3 Strengths

Our study took a nation-wide, cross-sectional sample of both pre-clinical and clinical students from Australia's 21 different medical schools. A major strength of our study was the use of a combination of open and close-ended questions in the survey, which enabled both quantitative and qualitative analysis to be undertaken. Our quantitative component allowed us to analyse the correlation between each lockdown coping strategy and students' mental health outcomes: reading non-medical books, spending time with friends and family were found to be the most impactful in showing self-reported improvement in mental health. While mental health improvement is self-reported in this study, one of the key quality measures of mental health is the individual's symptoms [19]. The questions in this study gauging the participants' self-reported mental health focused on the participants' mood. A study has also shown that evaluating participants' self-reported mood is not only key to evaluating participants' mental health, but also their quality of life under stress [20]. Our qualitative component allowed students to present their unique strategies, highlight their benefits and disadvantages, and furthermore, justify their continued or discontinued usage post-lockdown. This allowed for more detailed insight into how, for example, some coping strategies such as TV shows and movies resulted in more procrastination, while other

strategies such as exercise and socialising resulted in a sense of connectedness and general wellbeing.

This, in turn, provides medical faculties with clearer information to guide support strategies for medical students' mental health. Whilst the study does have its limitations, it does help shed light upon the wellbeing activities most effective and most favoured by students, whilst highlighting the need for more focused and controlled studies to inform medical faculties in the implementation of relevant, rationalised and effective support programs, activities and focus topics.

5. Conclusion

Our mixed-method study emphasises the importance that various coping strategies have on improving and maintaining the mental health of medical students during the COVID-19 pandemic. Our study found that strategies that facilitated students to socialise and engage in activities unrelated to academics allowed them to cope with their mental stressors more effectively. In particular, these included reading non-medical books, and spending time physically or virtually with family and friends. Better understanding the positive predictors of medical students' mental health is necessary to provide more relevant, tailored support for our future medical professionals.

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Statements and Declarations

Conflict of Interest

Nil potential competing interests.

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Data availability

The datasets generated during and/or analysed during the current study are not publicly available to protect the anonymity and privacy of participants, but are available from the corresponding author on reasonable request.

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