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The Effects of Coping Mechanisms on Success and Overall Health of Medical Students

By

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What makes talking about anxiety and depression so much more frightening than talking about hypertension, diabetes, and cancer?¹ In 1999 the report of the surgeon general on mental health considered mental health distinct from the absence of mental illness, indispensable to personal well-being, relationships, and contributions to society, and in need of immediate help.² Mental illness is the cause of large-scale morbidity and mortality.³ Research focused on mental distress due to long-term exposure to stressors revealed increased depression and anxiety in medical students compared to ordinary people.⁴ The emotional distress that medical students experience has serious consequences which include, but are not limited to, substance abuse, broken relationships, suicidal ideations and serious thoughts of dropping out.⁴ Suicide rates in the United States are higher among physicians than the general population, roughly 28-49 per 100,000 as compared with 12.3 per 100,000 in the general population.⁵

The mental health of medical students is an area of increasing worldwide concern as this population has been shown to be particularly prone to depression, anxiety, and stress due to multiple factors including academic pressures, environmental changes, and life challenges such as transition from being a medical student to being a knowledgeable, responsible healthcare provider.⁶ Other stressors that students studying medicine deal with include financial, workload, academic pressure, inadequate professor and student relationships, family problems, peer relationships, physical illness, emotional problems, and worries regarding the future. These major stressors contribute to anxiety and depression among medical students.⁶

Medical students are more often considered high achievers, perfectionists, and possessing more Type A personality traits than their counterparts in other academic fields. The demanding commitments of medical school training have profound effects on their personalities and

psychological health. Therefore it is not surprising that there is a very high incidence of anxiety, depression, stress and sleeping difficulties among this population.⁷

Healthcare schools are recognized as stressful environments that often have a negative effect on students' experiences of stress or their reactions to stressors. The stress of attaining a medical education often has a negative effect on students' academic performance, physical health, mental health and psychosocial well-being. The consequences of untreated depression and anxiety may include a student's suicidal behavior, poor academic performance, and withdrawal from their medical course or program.⁶

The purpose of this paper is to analyze the current published literature in determining the following question. In students studying medicine, how does seeking professional mental health assistance for anxiety and depression compared to trying self-remedies effect overall health and academic performance throughout their medical training education?

Lack of Help Seeking Behavior

Studies reveal that few medical students who need psychiatric assistance actually seek care.⁸ A cross-sectional student survey administered at a large, Midwestern medical school revealed that few medical students with moderate to severe PHQ-9 scores had a current depression diagnosis, and even fewer were receiving treatment.⁵ The literature reveals that medical students regard depression as a personal weakness. A large component is that disclosure of depression seems to be perceived as a threat to the quality of their learning experience and potentially may lower their competitiveness for chances of being placed in residency training.⁵

A cross-sectional study of students at the University of North Dakota School of Medicine and Health Sciences hypothesized that the perception of stigma is a potential source of the lack of care-seeking behavior.⁸ Other variables contributing to the delay or avoidance in care

include trouble taking time off, long wait times, cost, lack of convenience or access, or a fear of confidentiality breach. Among students who do seek medical care, a majority seek it at their home institutions due to stigma and a fear of confidentiality breaches. These are also two reasons that students choose not to seek treatment for their physical and mental health-care needs during their training and instead decide to consult peers and supervisors to help them cope. Of the students who participated in this study, twenty-five percent of them reported an increase in mental health needs since beginning medical school, and these students were more likely to agree that their needs were untreated. The study found that burnout peaked during the second and third years of medical training and correlated strongly with stress and increased and untreated needs.

Students who reported being uncomfortable asking for academic help were more likely to have mental health needs for which they did not seek treatment. This finding suggests that academic help seeking and supportive faculty relationships may be protective via association with increased awareness of needs and healthier coping and support mechanisms in general. It further suggests that isolation and lack of help seeking might be significant factors for mental health problems and suicide among medical students. The consequences of high levels of stress, depression, and burnout in medical students include lowered academic performance, decreased empathy, increased substance abuse, and increased suicidal ideation.⁸

Of the students who did seek mental health care, most reported attending appointments with a mental health provider for stress, depression, anxiety, substance abuse, eating disorders, and suicidal ideation. Forty-five students, which represent 24.5% of the participants in the study, reported increased mental health needs since starting medical school. Approximately one third of the students agreed that they had mental health needs that they did not seek care for.⁸

This study suggests that medical schools promote and foster the development of faculty/student mentoring relationships over time.⁸ By strengthening this relationship it would encourage students to gain confidence in asking for help. Utilization of approach-oriented coping strategies rather than avoidant-oriented strategies was associated with significantly decreased risk of burnout and was inversely correlated with depression.⁸ When having comfort to seek external support and using reflective practice, which have been key to improving professionalism and clinical practice, students may be taught to assess their needs for help clinically, academically and personally which will better and promote positive change to their overall wellness.

Another study, performed at Yale School of Medicine, reports that approach coping strategies and social support are speculated to have an inverse relationship with the prevalence of depression and burnout in the medical student population.⁹ This study was conducted by using an electronic survey sent to all students at Yale School of Medicine of which 183 students responded, which represents 35% of their student population. Whereas stigma, stress, and burnout may be barriers to care in this population, support systems and comfort with help seeking appears to be protective. Support systems included family, partners, peers and faculty members.⁹ According to this study, these findings are consistent with previous literature that suggests that support systems help decrease rates of depression, stress, and burnout.⁹

This study had multiple limitations. The survey was developed by authors and not tested and proven valid prior to its use. Another limitation was that although confidentiality and anonymity were fully preserved, students may have been uncomfortable in participating in the survey as it was addressing personal health concerns. The sample was drawn from one school therefore the results of this study are further limited by the sample. Therefore a recommendation

for future research is made to confirm if the results of this study can be generalized by surveying other medical school populations.

Mind-Body Skills Workshop Intervention

An adapted, optional four-week mind-body skills workshop for medical students conducted at a large, southeastern medical school was effective in reducing stress, increasing mindfulness, and enhancing self-care.¹⁰ The study was intended to evaluate a brief, extracurricular four-session workshop for medical students with an emphasis on self-care, the science of mind-body medicine, and the practice of mindfulness and other mind-body skills. The hypothesis was that it would help reduce stress, increase mindfulness, help enhance engagement in self-care behaviors, and increase understanding and utilization of stress-management and relaxation skills.

The study was a prospective, observational, and mixed methods design, with pretest and posttest evaluations. There were 44 participants from Duke University Medical School. The results of the study showed that participants reported that the workshop was helpful in helping them learn to cope more skillfully with the stress and emotional challenges of medical school, and helped increase self-care behaviors, which included exercise, sleep, and engaging in social support. Students also reported a 32% decrease in perceived stress and a 16% increase in mindfulness upon completion of the workshop.

The results of the study suggest that a brief voluntary mind-body skills workshop specifically adapted for medical students is an effective mechanism for reducing stress, increasing mindfulness, and enhancing student self-care.

The limitations of this study were that there were only 44 medical students included in the study. The authors of the study recommended using larger sample sizes in future studies in

order to replicate the effects of the adapted mind-body skills study. Another limitation in this study is that the study lacked a control group. Another impediment was the adherence to weekly home practice exercises and the use of mind-body skills was not formally tracked and was rather voluntary reported by the students. It was suggested that in future studies daily written or electronic logs or smartphone records could be utilized to track this data. There also was no long-term follow-up after the study, so the lasting effects of positive changes in perceived stress, mindfulness, self-care behavior, and use of stress management skills are unknown.

Another study conducted at a medical university supports the conclusion that well-being intervention may provide medical students with skills to efficiently manage maladjustment and emotional distress caused by their medical training and its many responsibilities and pressures.⁴ The study aimed to detect the efficacy of well-being therapy in promoting adaptation to medical school and alleviating emotional stress among students studying medicine.

There were one hundred and one students who met the inclusion criteria for the study and were enrolled into the single-blind randomized controlled trial. Well-being therapy was given to the intervention group every week for five weeks. Concurrently the students in the placebo group were asked to record early memory for five weeks and voluntarily share them at the weekly meetings. Psychological well-being, adaptation, anxiety and depression were recorded at pretest, posttest, and at three-month follow-up. The results were then analyzed and revealed that compared with the control group, the students that underwent the 5-week well-being therapy reported larger improvements in psychological well-being and adaptation, and greater alleviation in symptoms of depression and anxiety from pretest to posttest follow-up.⁴

This study concluded that well-being intervention may provide medical students with the mandatory skills to efficiently and effectively manage maladjustment and emotional distress. It

further supports that medical students would immensely benefit from an intervention program that could be incorporated into the general medical education.⁴ It reveals that the facilitation of well-being and optimal human functioning could be a desirable and effective strategy for decreasing the intensity of psychological distress. It might yield significant protective factors when confronted with the numerous challenges and adversities. The goal of well-being therapy is to promote psychological well-being which can contribute to the enhancement of individuals' coping capacity and resilience in the face of stress, therefore preventing negative emotions from spiraling downwards into clinical disorders such as anxiety and depression. Psychological well-being involves experiencing deep connections with others, trying to identify one's own potential, setting and pursuing personal goals, regulating demands and opportunities around, and experiencing self-acceptance and self-determination.⁴ Psychological well-being intervention is suggested to be an efficient solution for improving maladjustment and emotional distress among medical students.

Conclusions

More studies need to be conducted to answer the current PICOT question. There is no significant literature discussing the effects of the initiation of medications used to treat mental health conditions such as depression and anxiety. This is primarily due to stigma, fear of a breach of confidentiality, and the worry that it may cause them to be less competitive for medical students who will be applying to residency.

Further investigation is merited to understand the effects of mental health interventions and its effect on success and wellness in medical, PA, PT, pharmacy, and dental students. These studies are significant because every year there are students studying medicine that become incapable of performing their daily tasks or drop out of school due to the unbearable

psychological pressure or mental distress they encounter in their medical training. This study therefore has practical significance for medical universities in promoting the mental health of medical students and avoiding burnout.⁴ From the perspective of a clinician these studies help providers understand what their patients may be going through and how to better assist them. Providers should be aware of different therapies, both medical and non-medical that they can recommend to their patients who are struggling with burnout, stress, anxiety and depression during their medical education.

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