

Medical Student Mental Health Services: Psychiatrists Treating Medical Students

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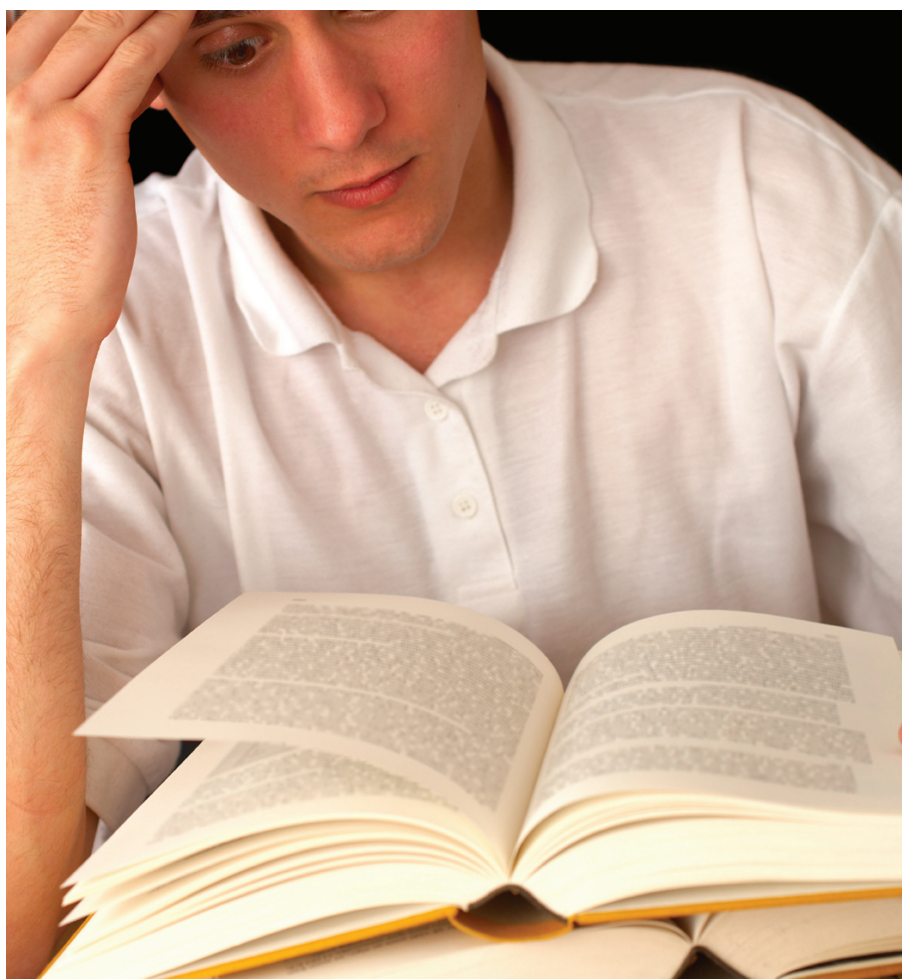
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ABSTRACT

Medical school is a stressful and challenging time in the academic career of physicians. Because of the psychological pressure inherent to this process, all medical schools should have easily accessible medical student mental health services. Some schools of medicine provide these services through departments of psychiatry or other associated training programs. Since this stressful lifestyle often continues through residency training and life as a physician, this is a critical period in which to develop and utilize functional and effective coping strategies. When psychiatrists provide the mental health treatment to medical students, it is important to consider transference and countertransference issues, over intellectualization, and instances of strong idealization and identification.

INTRODUCTION

Medical school is inherently a stressful, challenging academic experience, which may make medical students vulnerable to depression, anxiety, and burnout. The potential psychological distress in medical school students has been studied by various researchers. Subsequent to medical school, life for a practicing physician also often lends itself to a



EDITOR'S NOTE: All cases presented in the series "Psychotherapy Rounds" are composites constructed to illustrate teaching and learning points and are not meant to represent actual persons in treatment.

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chronically stressful lifestyle. Patterns of coping prior to medical school, as well as personality traits, support systems, and many other factors, affect who will experience stress and their ability to deal with it.

Studies that investigate the mental health of physicians in practice have shown that the stresses that begin in medical school tend to continue throughout the years of practicing medicine. Riley et al¹ proposed that stress in doctors is a product of the interaction between the demanding nature of their work and their often obsessive, conscientious, and committed personalities. In the face of extremely demanding work, a subjective lack of control and insufficient rewards are powerful sources of stress. Riley states that “if demands continue to rise and adjustments are not made, then inevitably a ‘correction’ will occur, which may take the form of ‘burnout’ or physical and/or mental impairment.”¹¹

PHYSICIANS, STRESS, AND BURNOUT

Ro et al² investigated the effectiveness of a counseling intervention on the level of burnout in physicians and predictors of change.² *Burnout* has been defined as “a state of physical, emotional, and mental exhaustion caused by long-term exposure to demanding work situations. Burnout is the cumulative result of stress.”³

In Ro et al’s study,² counseling was aimed at motivating reflection on and acknowledgement of the doctors’ situations and personal needs. One year after the counseling, participants reduced their working hours by 1.6 hours/week (SD 11.4).² There was a reduction in the proportion of doctors on full-time sick leave, from 35 percent at baseline to six percent at follow up, and an increase in the proportion of physicians who underwent psychotherapy, from 20 percent at baseline to 53 percent at followup.

Reduction in emotional exhaustion was independently associated with reduced number of work hours/week.²

Previous studies on the psychological health of physicians shows the medical community exhibits a relatively high level of certain mental health problems, particularly depression, which may lead to drug abuse and suicide.⁴ In a review by Tyssen⁴ of 20 years of prospective studies investigating mental health problems in early career physicians, nine cohort studies found that symptoms of mental health problems, particularly depression, were highest during the first postgraduate year. Tyssen observed through previous studies that the medical community exhibited a relatively high level of certain mental health problems, particularly depression, which in some cases led to drug abuse or suicide. According to Tyssen, an individual’s family background, personality traits (neuroticism and self-criticism), and coping by wishful thinking, as well as contextual factors, including perceived medical-school stress, perceived overwork, emotional pressure, working in an intensive-care setting, and stress outside of work, were often predictive of mental health problems.⁴

Firth-Gozens et al⁵ investigated the levels and sources of stress, depression, and alcoholism in physicians and how these affected the care physicians provided to their patients. This paper focused on a longitudinal study, which followed 314 medical students over 11 years, but also used other relevant recent literature to discuss the issues that arose.⁵ Deficits in medical care frequently were found to be associated with stress and with the fact that there is an apparent lack of recognition of psychological problems when they occur in doctors. Firth-Gozens et al⁵ proposed a system of organizational and individual primary and secondary

interventions to address psychological problems in physicians.

MEDICAL STUDENTS AND STRESS

The overall prevalence of psychological morbidity in medical students was found to be 20.9 percent by Sreeramareddy et al.⁶ Psychological morbidity was assessed in this study using the General Health Questionnaire, a 24-item questionnaire used to assess sources of stress and its severity. The brief COPE Inventory¹⁶ was utilized to assess coping strategies. The most common sources of stress were related to academic and psychosocial concerns, especially high parental expectations, vastness of syllabus, tests/exams, and lack of time to complete tasks. The students generally used active coping strategies, such as positive reframing, planning, acceptance, self-distraction, and emotional support. Alcohol/drug use was the least used coping strategy.⁶

Dyrbye et al⁷ identified 40 articles on medical student psychological distress (i.e., depression, anxiety, burnout, and related mental health problems) among US and Canadian medical students. The authors found there was evidence of a high prevalence of depression and anxiety among medical students, with levels of overall psychological distress consistently higher than in the general population and age-matched peers.⁷ Overall, the studies suggested psychological distress may be higher among female medical students.

SUICIDE AND SUICIDAL IDEATION AMONG MEDICAL STUDENTS

The most dramatic and tragic consequence of severe mental health problems in medical students is suicide. Dyrbye et al⁸ investigated the prevalence of suicidal ideation among US medical students and how it relates to

TABLE 1. The defense constellations

MATURE DEFENSES
Suppression
Altruism
Sublimation
Humor
NEUROTIC (INTERMEDIATE) DEFENSES
Intellectualization (isolation)
Repression
Reaction Formation
Displacement
Somatization, undoing, rationalization
IMMATURE DEFENSES
Passive aggression
Acting out
Dissociation
Projection
Autistic fantasy
Devaluation, idealization, splitting
Psychotic defenses
Denial (of external reality)
Distortion (of external reality)

Adapted from: Novalis PN, Rojcewicz SJ, Peele R. *Clinical Manual of Supportive Psychotherapy*. Washington, DC: American Psychiatric Press, Inc., 1993.

burnout. The study consisted of 4,287 medical students from seven medical schools. Burnout was reported by 49.6 percent of students, and 11.2 percent reported suicidal ideation within the past year.⁸ A sensitivity analysis was conducted that assumed all nonresponders did not have suicidal ideation. The prevalence of suicidal ideation in the previous 12 months was 5.8 percent. In the longitudinal cohort, burnout, quality of life, and depressive symptoms at baseline predicted

suicidal ideation over the following year. Of the 370 students who met criteria for burnout in 2006, 99 (26.8%) recovered. Overall, Dyrbye concluded that approximately 50 percent of medical students experience burnout and 10 percent experience suicidal ideation during medical school. Burnout is associated with increased likelihood of subsequent suicidal ideation, whereas recovery from burnout is associated with less suicidal ideation.⁸

These studies underscore the importance of making medical students aware of mental health symptoms, their early identification, and the availability of effective and accessible medical student mental health services.

PRACTICE POINT: PERSONALITY, LEARNING STYLE, AND COPING SKILLS

In a prospective study of a large cohort of 30-year-old practicing physicians, McManus et al⁹ investigated the extent to which approaches to work, workplace climate, stress, burnout, and satisfaction with medicine as a career were predicted by measures of learning style and personality measured 5 to 12 years earlier, when the doctors were applicants to medical school or were medical students. Participants completed a questionnaire about the measures and answered self-report questions about personality characteristics. The investigation concluded that differences in approach to work and perceived workplace climate mainly reflected stable, long-term individual differences and were related to personality characteristics and learning style.⁹

The transition to medical school can be a difficult time for students who are accustomed to performing well on exams and mastering all material presented to them. Taking into account various personality traits and defense mechanisms that are already in place in the medical student is important when evaluating a medical student who is

under stress. Most defense mechanisms that are in place are “mature” (Table 1) but others less so. Unfortunately, the defense mechanisms utilized by the student during times of severe academic stress may move from “mature” defenses to “immature” or “neurotic” depending on the preexisting repertoire of coping skills.¹⁰ What worked for the student prior to medical school, or the degree of stress for which he or she was previously able to compensate, may be altered with the significant increase in academic load. The tendency to move to immature or neurotic defenses can be effectively reviewed and altered as needed during the course of psychotherapy.

Medical students generally tend to have obsessive, conscientious, and committed personalities.¹ By definition, they exhibit academic strength and commitment to delayed gratification. The typical personality style and characteristics of a medical student may provide insight into the mental health issues they may experience. These same traits may hold both advantages and disadvantages in dealing with the rigors ahead.

Composite clinical case: medical student #1—Jonathan (not a real patient). Jonathan self-referred himself to the mental health services of the university one month after medical school orientation, which included an informational session on the medical student mental health services available to all students.

Jonathan requested “help with anxiety, since I failed my first anatomy exam.” He presented at the intake appointment tearful and visibly shaken as he shared that he had never before performed poorly on an exam. He stated he was overwhelmed with the amount of material presented and the lack of time to “memorize” everything. Jonathan had no psychiatric history and no medical history. He was taking an antihistamine for allergic rhinitis as his only daily

medication. During the intake appointment, a complete history was taken, and both psychotherapy and medication options were reviewed. He was also made aware of additional resources within the school of medicine, including tutoring and psychological testing, which focuses on identifying the most effective study paradigm for each individual student (e.g., audio learning vs. visual learning).

Composite clinical case: medical student #2—Abigail (not a real patient). Abigail presented to the mental health services late in the first quarter of her first year of medical school. During the first several weeks of school, the students' curriculum included a neuroscience course wherein students reviewed the developmental stages from birth through adolescence. Psychological stressors were covered through each stage of life, including various psychological traumas and the effect of each on normal development. Abigail presented to the clinic following the class that covered childhood abuse.

She began by asking if the session was confidential and if the school of medicine would be made aware of her mental health treatment. After she was assured there was complete confidentiality, she proceeded to describe sexual abuse she experienced during her early school years when she spent time with a relative after school each day. She shared that she had counseling in the past and felt she had processed and resolved this trauma, but during the lecture on childhood abuse, she experienced a resurfacing of the emotional upheaval she had known before.

After several sessions working on the emotional distress and the effect the abuse had on her relationships with primary family members, Abigail was able to explore the resurfacing of affect related to the alleged abuse. She also became passionate about her advocacy for others and her commitment to a medical practice

where she could achieve her goals, despite having suffered molestation at a critical developmental stage. Abigail continued in weekly psychotherapy for eight months, at which time a mutually agreed upon termination was completed.

PRACTICE POINT: PATTERNS RELATED TO YEAR IN MEDICAL SCHOOL

Medical students may self-refer for mental health services at predictable times in the curriculum. As illustrated in the two previous case examples, during the first year there may be academic stress while transitioning from a less challenging curriculum to the rigors of medical school and also during course work, which entails the study of abuse, trauma, or other psychological stressors. The second year may bring students in who seek mental health services while preparing for and anticipating the first in the series of medical licensing board examinations.

Some students feel confident with the curriculum of the first two years, but experience increased stress and anxiety when beginning the third year, which brings to light the importance of interpersonal skills, teammanship, and flexibility while rotating through various specialties of medicine. The third-year psychiatry clerkship, while studying mood and anxiety disorders or while hearing patients' traumatic histories, may cause the emotionally overwhelmed student to request mental health services. The third year also inevitably puts medical students in contact with patients who have terminal illnesses. The end of third year and the beginning of fourth year may bring stressors related to career choices, interviewing for residencies, and the second medical licensing board examination.

The third year of medical school was studied by Haglund et al.¹¹ Many students in the study reported exposure to trauma,

personal mistreatment, and poor role modeling by superiors.¹¹ Trauma exposure was positively associated with personal growth at year's end, which indicates that students tend to be resilient. In contrast, exposure to other stressful events made the students vulnerable to depression and other stress symptoms.¹¹

Ratanawongsa et al.¹² explored third-year medical students' experiences with death and dying patients during the first internal medicine clerkship. Medical students who had encountered death or dying patients often formed relationships with these patients that were characterized by attachment, empathy, and advocacy.¹² Students participated in preclinical end-of-life (EOL) courses, but found the most benefit from patient care experiences that were guided by teams who acknowledged death, role-modeled EOL care, and respected colleagues' participation in patient care. Students further developed their professional identities by utilizing opportunities to manage strong emotions, understand the challenges of transitioning to residency, and gain a sense of self efficacy as future physicians who provide EOL care.¹²

PRACTICE POINT: MEDICAL STUDENTS AS PATIENTS—SELECTION OF TYPE OF PSYCHOTHERAPY

When medical students present for psychotherapy, the psychiatrist must decide what type of psychotherapy is most appropriate for the specific patient/medical student. As with any other patient, information about presenting symptoms, past medical and psychiatric history, psychosocial history, current relationships, psychological functioning, and coping skills should be collected. Based on this information and other pertinent factors, a treatment plan is established. Table 2 summarizes issues taken into consideration with selecting what

TABLE 2. Patient selection for four therapies: psychodynamic, cognitive, interpersonal, and supportive

TYPE OF THERAPY	SELECTIVE PATIENT VARIABLES
PSYCHODYNAMIC	Chronic sense of emptiness and underestimation of self worth
	Loss or long separation in childhood
	Conflicts in past relationships
	Capacity for insight
	Ability to modulate regression
	Access to dreams and fantasy
	Little need for direction and guidance
	Stable environment
COGNITIVE	Obvious distorted thoughts about self, world, and future
	Pragmatic (logical) thinking
	Real inadequacies (including poor responses to other psychotherapies)
	Moderate to high need for direction and guidance
	Responsiveness to behavioral training and self help (high degree of self control)
INTERPERSONAL	Recent, focused dispute with spouse or significant other
	Social or communication problems
	Recent role transition or life change
	Abnormal grief reaction
	Modest to moderate need for direction and guidance
	Responsiveness to environmental manipulation
SUPPORTIVE	Failure to progress in other types of therapy
	Suicidal
	Cognitively impaired and illogical
	Acute or chronic medical illness
	Presence of somatization or denial of illness
	Requiring high levels of guidance or responsive to behavioral methods

Adapted from: Novalis PN, Rojcewicz SJ, Peele R. *Clinical Manual of Supportive Psychotherapy*. Washington, DC: American Psychiatric Press, Inc., 1993.

patient characteristics may guide the type of psychotherapy to be used.¹⁰

The medical student who has the capacity for insight, the ability to modulate regression, and lives in a stable environment is appropriate for psychodynamic psychotherapy.¹⁰ The student with pragmatic (logical) thinking, moderate to high need for direction and guidance, and responsiveness to behavioral training and self help (high degree of self control) would be well suited for cognitive therapy. The student with a recent, focused dispute with spouse or significant other, abnormal grief reaction, or recent role transition or life change may be an appropriate candidate for interpersonal therapy. Finally, the student with failure to progress in other types of therapies, who has real inadequacies, or who require high levels of guidance (as in the case of acute academic stress) may be well suited for supportive psychotherapy.¹⁰ It also may be appropriate to change the type of therapy during treatment if the acute needs of the medical student are altered.

PRACTICE POINT: PERSONAL LIFE EVENTS DURING MEDICAL SCHOOL

When stressful life events, such as a death in the family or a relationship breakup, occur, medical students who under normal circumstances could tolerate this event may find themselves falling short. The demands of medical school usually will limit the student's ability to handle other stressors; their main concern may be that they "don't have time" for these things and must not take time out from studying and coursework to attend to other life events. A psychiatrist acting as therapist can facilitate the processing of the emotional event during therapy while guiding the student to stay focused on the curriculum so the event is not too disruptive to the educational process.

Dyrbye et al¹³ sought to identify the prevalence of burnout, variation of its prevalence during medical school, and the impact of personal life events on burnout and other types of student distress.¹³ The authors found that burnout was present in 45 percent of medical students. Furthermore, while the frequency of a positive depression screen and at-risk alcohol use decreased among more senior students, the frequency of burnout increased (all $p < 0.03$). Negative personal life events in the previous 12 months also correlated with increased risk of burnout. Personal life events demonstrated a stronger relationship to burnout than did a year in training on multivariate analysis. Dyrbye et al concluded that burnout appears common among US medical students and may increase each year in schooling. Despite the notion that burnout was primarily linked to work-related stress, personal life events also demonstrated a strong relationship to professional burnout. The authors' findings suggest both personal and curricular factors are related to burnout among medical students.¹³

Composite clinical case: medical student #3—Katherine (not a real patient). Katherine was a third-year medical student with no prior psychiatric history or treatment. She requested mental health services after doing poorly on an oral presentation during her third-year internal medicine clerkship. Katherine reported to the psychiatrist at the intake that her mother died at the age of 32 of pancreatic cancer, and Katherine was approaching her 32nd birthday. She obsessed over recent years about her health, and as she progressed through pathology during her second year of medical school, she feared that she had many of the medical conditions she studied.

Her preoccupation with her medical status prompted her to seek medical care over the previous two months *pro bono* from various

TABLE 3. Causes of countertransference	
WITHIN THE THERAPIST	
	Different cultural background from patient
	Mutual blind spots shared with patient
	Romanticizing of mental illness in general
	Idealized perception of role as healer and helper
	Inadequate understanding of the patient's disease process
	Transference elements in the therapist's past
	Resentment if patient pays low or no fee
	Pity
	Unresolved issues in the therapist's life
	Overidentification and sympathy in place of empathy
WITHIN THE PATIENT	
	Symptomatic behavior
	Primitive affect
	Criminal behavior or other antisocial traits
	Lack of insight
	Repetitive failures in coping
	Intelligence and verbal ability different from therapist's
	Lack of motivation
	Nonadherence with medication
	Nonadherence with other prescribed therapies
	Failure to follow therapist's advice
WITHIN THE THERAPY	
	Dependency on the therapist
	Anger and/or hostility toward therapist
	Manipulation
	Splitting
	Time demands on the therapist (e.g. the "difficult" patient)
	Stress in the therapeutic session
	Real relationship with the therapist that is too intense
Adapted from: Novalis PN, Rojcewicz SJ, Peele R. <i>Clinical Manual of Supportive Psychotherapy</i> . Washington, DC: American Psychiatric Press, Inc., 1993.	

physicians in the community. She had increasing anxiety that her preoccupation with her health would affect her choice of residency. At the end of the first appointment with the psychiatrist, she agreed to begin taking an selective serotonin reuptake inhibitor for anxiety and also that she would immediately stop pursuing medical workup until it could be discussed in more detail during the weekly psychotherapy sessions.

**PRACTICE POINT:
TRANSFERENCE AND
COUNTERTRANSFERENCE IN
THE PSYCHIATRIST—MEDICAL
STUDENT/PATIENT
RELATIONSHIP**

Transference is defined as the process that leads to attitudes, assumptions, and feelings in the patient that are outgrowths of the patient's earlier relationships with significant others, especially parents.¹⁰ This process is mostly unconscious, and the patient may

replay or recreate emotional relationships from the past, using the therapist as the new “object.” In supportive therapy, the transference can be positive or negative, and is a kind of emotional reenactment of the past in the present.¹⁰ In the therapeutic relationship where there is a doctor-patient relationship between a psychiatrist and medical student, it is common for identification to occur, and if utilized wisely this can strengthen the therapeutic alliance. Inherent to the stresses and pressures of medical school education, the student will undoubtedly be challenged to “fit” his or her life and relationships into his or her academic existence, whereas prior to medical school the patient likely “fit” school into his or her life and relationships. The student may feel better understood by a therapist who has experienced this extensive training, and so the psychiatrist treating the medical student forms a unique therapeutic bond.

Originally, countertransference was used to denote all the therapist’s feelings toward a patient.¹⁰ Properly attended, countertransference yields insight into the patient’s experience. A therapist may feel sad when treating a depressed patient, for example, and a therapist may feel manipulated when treating a patient with a personality disorder (Table 3). The psychiatrist treating a medical student will likely recall personal experiences in medical school, both positive and negative. These experiences can increase empathy, but should not be inappropriately projected onto the medical student. These insights and feelings should be used to enhance the treatment, not cause disruption. Although the psychiatrist may need to offer flexibility in scheduling the medical student patient, becoming overly accommodating may signal some countertransference issues. Likewise, the mobilization of the psychiatrist’s own feelings during

medical school could lead to an avoidance of certain themes and conflicts in the therapeutic sessions and should be attended to in the therapeutic alliance.

Little is written about the unique issues of psychiatrists or psychiatric residents treating medical students. A 1981 article by Kay¹⁴ about psychiatry residents treating medical students mentions several issues to consider, including excessive intellectualization by the medical students; unremitting fears of breach of confidentiality; and uncomfortable instances of strong identification and idealization with the resident. Over-identification of the resident with the medical student was cited as a concern by supervisors as it may impact the therapeutic stance. Such over-identification can occur with experienced psychiatrists as well, and all therapists should be aware of the potential to become either overly sympathetic to the medical student or to minimize the student’s psychopathology. Therapists may become frustrated when a medical student is not progressing in treatment, and feel even more of a sense of helplessness in not being able to help a future colleague. Or the therapist may feel conflicted about treating a “sick” medical student, especially when substance abuse issues arise. Internal strife may arise as the psychiatrist balances the ethical duty as a physician in feeling an obligation to protect patients that the “sick” medical student encounters. Certainly in very complicated situations, the need for a consultation may be necessary.

Psychiatrists must also be careful not to neglect aspects of care ordinarily carried out with other patients, such as ordering laboratory tests, or be overly zealous in ordering extraneous tests or procedures.¹⁵ Additionally the therapist may avoid “hard topics” with students, such as sexual activity or substance abuse. If the psychiatrist finds that he or

she is deviating from the standard approach, it may be wise to reflect on the variation or to seek consultation from a colleague.

CONCLUSION

It is evident that the mental health and optimal psychological functioning of medical students is of importance to the training of effective physicians. Medical student mental health services should be available, accessible, and affordable at every medical school for those who need them. When medical students undergo psychotherapy, their individual personality traits, temperaments, and coping styles must be explored and assessed. Defenses and coping strategies utilized prior to medical school may be inadequate in the setting of rigorous medical education. Students with no prior mental health history may find themselves in need of psychotherapy and sometimes medication management.

Medical school is a time of significant psychological distress for physicians-in-training. Psychiatric pathology, including but not limited to depression and anxiety, is more common in medical students than their age-matched controls. Medical student wellbeing is affected by positive aspects of medical training but also by multiple stressors.¹⁶ Attention to individual students’ psychological functioning can help promote wellbeing and minimize burnout. Helping students cultivate the skills to sustain their wellbeing throughout their careers has important payoffs for the overall medical education enterprise, for promotion of physician resilience and personal fulfillment, and for enhancement of professionalism and patient care.¹⁶

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