


# Chapter 10

## First–Aid Mental Health for the Pre–Medical Student

**Robert Lubin**

 <https://orcid.org/0000-0002-7325-3469>  
Touro University Worldwide, USA

**Benjamin Katz**

University of Southern California, USA

**Michelle Marants**

Queen's University, USA

**Mia Medney**

Florida State University, USA

**Charles Rosin**

Rutgers University, USA

**Dean Sandler**

Southern Methodist University, USA

**Sophie Schonberger**

Yale University, USA

**Jamie R. Sharabani**

University of Miami, USA


**Jacqueline Sherry**

University of Delaware, USA

**Gary Shteyman**

Syracuse University, USA

**Theodore Tran**

 <https://orcid.org/0000-0002-3590-3862>  
California University of Science and Medicine, USA

**Elana Weiss**

Hunter College, USA

**Edward Zeltner**

Cornell University, USA

**Matthew Zisu**

McGill University, Canada

### ABSTRACT

*College is intended to prepare students to become successful members of society. However, the academic demands of college can trigger stress and mental health problems. College students are in a unique position where they have to juggle academics, a social life, and, often, part-time jobs. As a result, college students are a particularly vulnerable group when it comes to stress and mental health issues. One subset of students facing the struggles of college achievements are pre-med students. Pre-med students face numerous challenges that can negatively impact their mental health. The academic pressures, financial stress, lack of social support, and relationship challenges, among others, can increase the risk of depression, anxiety, and other mental health disorders. The team of contributing authors on this chapter will address mental health in the higher education environment. This chapter will present a program for educators, peer students, and staff to provide mental health assistance for the premedical student.*

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## INTRODUCTION

Healthcare workers worldwide are subject to increasing pressures resulting from rapid escalation of change, growing economic pressures, technological advances and increasing patient expectations. Some believe many physicians suffer from a highly demanding work environment combined with lower levels of control, according to Karasek's model of demand-control imbalance, or from an effort-reward imbalance, according to Siegrist (Riley, 2004). A Medscape report indicated that 59% of doctors cited bureaucratic tasks as a leading contributor to burnout, 34% cited long hours, and 70% cited healthcare information-technology or electronic health records (Patientpop, 2019). Stress experienced by working physicians and medical students is inordinately high relative to the general population, leading to higher rates of anxiety, depression, thoughts of suicide, and burnout. We propose that this situation exists before the student even enters medical school. The experience of the pre-medical undergraduate student foreshadows the issues later experienced by the medical student and practicing physician.

A recent survey of freshmen (Stolzenberg et al., 2020) listed "premed" as the most desired choice of study consistently for the past 5 years. Nevertheless, the stress that pre-medical undergraduate students face is not always a priority within the education system. The issue should be addressed, being that there have been significant negative results of the effect this has on students' mental health. Particularly, the stress resulting from the competitive pre-med culture, familial pressure and responsibilities, and a students' personal circumstances substantially contributes to a student's academic performance and ambition to achieve. Starting from the first semester, the expectations for pre-medical include perfect grades, a high MCAT score, competitive clinical and research experience, and impressive volunteering and extracurricular activities. Ludmerer (1999) stated that a "student's success at learning medicine depended heavily on the aptitude, characteristics, and educational background that person brought to medical school in the first place" (p. 59) highlighting that the process of becoming a physician starts long before the first day of medical school.

As a result, students deal with stress that they have never experienced. This change can drastically harm their mental health, since too much stress on a person can lead to anxiety and depression (Sawatzky et al., 2012). As a result, students can experience difficulty concentrating and trouble retaining the proper amount of sleep (Mindell et al., 2011; Misra & McKean, 2000). Furthermore, students that struggle with mental health issues prior to joining a pre-med track during their undergraduate education often find it more difficult to manage. A study focusing on the anxiety of students in an introductory level biology course found that students with previous general anxiety disorders tend to perform poorly and change their major or career path as a result (England et al., 2017). In addition, students with depression were shown to correlate with a decrease in interest in becoming a doctor (Grace, 2018). Additional studies have found that there is a close relationship between depression and burnout in premedical undergraduate students. (Fang et al., 2012)

The competitive nature of pre-medical education, formulated by the high expectations and low acceptance rates of medical school, perpetuates an unhealthy culture that is psychologically detrimental to the students within. Ahmed (2019) discussed this culture in "The Real Core Competencies in PreMed Culture," specifically noting how the pressure of medical school replaces requirements like orientation towards service and curiosity for science with a focus on grades and resumes. He acknowledged the palpable tension in an organic chemistry class and the number of students who hold research positions they despise simply to check the box on their medical school admissions checklist. This culture is improperly setting up students for a future in medicine, as their priorities are imbalanced, with a stronger

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