



Assessing Student Burnout, Treatment Acquisition, and Barriers to Care to Prompt Changes in a Student Mental Healthcare Program

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Abstract

Objective Medical students demonstrate disproportionately higher levels of burnout and depression than their non-medical age-matched peers. Few studies have been conducted about rates of treatment acquisition and the barriers to care among students with mental health concerns. This study further characterizes rates of burnout, obstacles to treatment, and program preference for medical students at The University of Michigan.

Methods In June 2020, a 31-question survey eliciting information regarding student burnout, well-being, barriers to care, and improvements to overcome such barriers was sent to 588 current and recently graduated medical students at The University of Michigan. Participation was anonymous and voluntary, with optional response to each question.

Results Ultimately, 312 (53%) students responded. Pre-clinical and core clinical students were significantly more burned out than clinical elective students, with pre-clinical students' odds ratio (OR) of 2.45 and core clinical students' OR of 2.48. Most participants (81%) reported concerns regarding their emotional well-being. Two-thirds (66%) indicated a new or previously diagnosed mental health concern, with 37% of these students never having sought treatment. Commonly reported barriers to care and suggested improvement to mental health services are outlined. Commonly reported barriers to care were financial concerns, time constraints, and stigma-related fear of career-ending consequences.

Conclusions This study showed stratification of the high levels of burnout among medical students. Student-driven feedback and survey results can help prompt medical schools to develop more robust mental healthcare models and drive much-needed structural changes.

Keywords Barriers to care · Medical student (mental health) · Burnout

The prevalence of burnout and depression in the medical profession is well-studied, with adverse consequences observed at all levels of training [1–4]. Even though medical students have lower rates of burnout and depression prior to matriculation, burnout among medical students in the USA hovers around 50%, and the prevalence of depression is three times more than age-matched peers outside of medicine [3]. Medical students are faced with the unique challenge of navigating a hyper-competitive atmosphere with insufficient time designated for seeking help. Of particular concern, 10% of students experience suicidal ideation during their time in medical

school [1–3]. Unfortunately, fewer than 13% of students seek treatment [4].

Less well-studied are the driving forces behind why these problems remain so prevalent and what institutions have done to address these concerns [5–8]. Many efforts to support student mental health focus on extracurricular wellness programming and often do not address the underlying structural issues that contribute to the erosion of student wellness [9]. The literature describing proactive and preventative approaches to student mental health and wellness, including improved access to professional mental healthcare providers, is much smaller [9, 10].

The research exploring why medical students do not seek treatment is similarly limited, and the studies that do exist are older, likely missing some of the more current pressures. Studies by Tija and Givens demonstrated that depressed medical students underutilized professional services, with fewer than 30% of depressed students obtaining treatment [11, 12].

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Across both studies, students expressed that lack of time was their main deterrent to receiving mental healthcare. Other notable barriers included lack of confidentiality, the stigma of receiving care, burdensome cost, fear of documentation within their academic record, and concerns about unwanted intervention. Since these studies, there have been limited literary contributions on this subject, particularly during the COVID-19 pandemic [10, 13]. This qualitative survey was conducted to illuminate rates of burnout stratified by class, barriers to accessing mental healthcare, and to elicit student preferences for improved services. This report describes the creation, dissemination, and analysis of this needs assessment aimed to inform future curricular and structural changes at a single institution.

Methods

This study was approved by The University of Michigan Institutional Review Board (HUM00183042). In 2020, an online survey was disseminated to 588 current and recently graduated medical students. This included pre-clinical, core clinical, and clinical elective students; those on a leave of absence (LoA); students in the dual-degree Medical Scientist Training Program (MSTP); and recently graduated post-graduate year 1 (PGY-1) interns. Newly matriculated first years were excluded from the survey, as data acquisition coincided with their first week of classes. Each participant received an email inviting them to engage in the study voluntarily and anonymously. Respondents were able to skip any question. Participants were offered compensation with a \$5 Amazon gift card.

The survey utilized a non-proprietary single-item measure of burnout, with each participant using their own definition of burnout to choose one from the following: “1 = I have no symptoms of burnout, 2 = occasionally I am under stress but I do not feel burned out, 3 = I am definitely burning out and have one or more symptoms of burn out, 4 = the symptoms of burnout I am experiencing will not go away, 5 = I feel completely burned out.” This measure has been validated as a viable alternative to the Maslach Burnout Inventory (MBI) subscale on Emotional Exhaustion (MBI:EE) [14]. Based on the 5-point scale, a response of ≤ 2 signified no symptoms of burnout, while ≥ 3 was scored positive for one or more symptoms of burnout. MSTP, LoA, and PGY-1 cohort burnout OR were not calculated as they were not actively engaged in undergraduate medical education at the time of the survey.

Respondents were also asked to rate their level of agreement to the statement, “My work schedule leaves me enough time for my personal/family life.” A 5-point Likert scale was used, ranging from strongly disagree to strongly agree [15]. Students were asked about perceived or diagnosed emotional well-being and mental health concerns during medical school. Those who indicated having a mental health concern were

asked whether they sought treatment and their satisfaction with each resource utilized. The subgroup of respondents who indicated that they had a mental health concern but did not seek care were asked to identify common barriers that may have prevented them from seeking treatment.

This survey was administered using Qualtrics (Provo, UT). Statistical analyses, including descriptive statistics, were completed in R (Vienna, Austria) [16]. To assess whether burnout is independent of curricular phase, Fisher exact testing was conducted. Because a table greater than 2×2 was assessed, Monte Carlo simulation was conducted. Bonferroni correction was applied to account for multiple comparisons. Chi-square testing was considered but dismissed because one category had an expected count of < 5 . To compare rates of burnout by class year, logit regressions were constructed to calculate odds ratios. Confidence intervals were constructed utilizing robust standard deviations to account for heteroskedasticity. To assess constraints on personal time by curricular phase, z-scores were computed.

Results

Of the 588 recipients of the survey, we received 312 total responses (response rate of 53%). As a whole, students had an average burnout score of 2.6 ($p \leq 0.01$) (pre-clinical students 2.75, core clinical students 2.72, clinical elective students 2.38). Burnout at the time of survey completion was calculated as odd ratios (OR) with clinical elective students as the baseline comparison. When results were stratified by year, pre-clinical students had an OR of 2.45 (95% CI 1.28–4.67, $p \leq 0.01$) and core clinical students had an OR of 2.48 (95% CI 1.37–4.49, $p \leq 0.01$) of burnout relative to clinical elective students.

Nearly half (43%) of respondents felt that their schedule did not leave them with enough time for personal/family life. More pre-clinical and clerkship students felt they did not have enough time for family and friends than students in the clinical electives phase (46% and 54% compared to 34% respectively, $p = 0.14$ and $p < 0.01$).

Most students (82%) reported having had a concern about their overall emotional well-being at some time during medical school. Two-thirds (67%) of participants reported either a new or previously perceived mental health concern. Of the 207 students with a self-reported mental health concern, more than one-third (37%) had never attempted to seek treatment. Among students who had sought treatment, mental health services were accessed through the medical school mental health program (40%), private sector (38%), university-wide student health services (12%), and other (10%). Respondents were more satisfied with external therapists than the Medical Student Mental Health program (4.16 vs 3.73, $p = 0.05$).

Seventy-seven participants identified barriers to obtaining care. Fifty-four participants identified more than one barrier. The most common reasons for not seeking care were lack of time (noted by 46 participants), fear of having to disclose treatment during their career (noted by 29 participants), and cost (noted by 26 participants). The 23 participants who responded “other” indicated that their mental health concerns were mild ($n = 11$), self-treated ($n = 8$), or went away with time ($n = 4$).

The aspects of mental health services that students felt were the most important (“extremely” or “very” important) were the quality of service offered (93%); scheduling ease (93%); flexibility of appointment times, such as weekends or after-hours scheduling (92%); and having no negative impact on career (91%). When the response category was restricted to “extremely important,” the most highly endorsed item was the guarantee that seeking mental healthcare would have no negative impact on a student’s future career (78%).

Students were given the option to provide a free text response with suggestions for improvement of professional mental health services, and 182 unique responses were coded according to common themes, as seen in Table 1. The most frequent themes were the desire for more flexibility in pre-clinical and core clerkship schedules (23%), increased focus on systems level change to address wellness (21%), access to dedicated therapists not affiliated with the medical school (18%), and annual opt-out check-ins or mental health screenings for all students (18%).

Discussion

In congruence with the broader burnout research, participants at The University of Michigan Medical School (UMMS) demonstrated high rates of burnout and mental health concerns [1, 3].

Over one-third of participants in need of help did not access it, a rate similar to that seen at other institutions [11, 12].

These results show that frequencies of burnout can vary between classes, and students mid-way through their pre-clinical year and core clerkships had the highest rates of burnout, with clinical elective students less burned out overall. One possible reason is that students in core clerkships are required to participate in clinical learning as well as study for exams. Some students may find the autonomy of choice provided in electives combats the known factor contributing to burden—lack of autonomy [17]. Other factors may include increased comfort with basic clinical skills, ease in navigating the clinical environment, including the hospital and clinics, and the electronic medical record system. Many clinical electives have fewer administrative burdens as well. The varying levels of burnout between classes may represent an opportunity to offer more targeted mental health support programming to each medical student class.

This report includes a description of potential drivers of the barriers to accessing mental healthcare including time, cost, stigma, fear of negative career impacts, and awareness of resources—something not regularly evaluated through other investigations. Suggestions for improved programming reflect areas where efforts can be made to focus interventions and institutional support. Implementing accessible mental health services will require systems-level changes, including dean’s level funding, space within the healthcare system to house the mental health services, and protected time within the curriculum for students to utilize these resources. Another systems-level change includes acceptance from peers, residents, and attending physicians so that students may have regular time for mental healthcare without negative repercussions in evaluations.

Policies concerning the reporting of mental health treatment to residency programs and questions asked by licensing boards are variable and unclear, with many students avoiding

Table 1 Student suggestions for improvement of professional mental health services at a single institution ($N = 182$)

Suggestion	<i>n</i> (%)
Time off/more flexibility in pre-clinical and core clinical year (i.e., dedicated appointment times, weekends off, etc.)	41 (23%)
Fewer “wellness events,” more focus on curricular/systems-level change (i.e., less busy work, reduce pre-clinical pace, pass/fail core clerkships)	38 (21%)
Dedicated medical student therapist not affiliated with medical school	32 (18%)
Regularly occurring opt-out check-ins/mental health screenings	32 (18%)
Free/reduced cost access to unlimited therapy	30 (17%)
Clarified/updated resources that are navigable (i.e., up-to-date list of therapists actively accepting patients with insurance/cost information)	28 (15%)
Ensure confidentiality—no internal EMR records, ensure no negative career impact	13 (7%)
Reduce stigma by talking about mental health more (students and faculty)	10 (6%)
Other: Peer support groups, more support for students on leave of absence, hire more diversely, no improvements	10 (6%)

EMR, electronic medical record

treatment for fear that future employers would view such treatment unfavorably. These barriers prevented a sizable portion of participants in need from receiving care. To eliminate these barriers, more advocacy is needed to clarify or amend potentially biased policies and to eliminate unethical questions about past mental health treatment on licensing applications.

Study limitations included sample characteristics, timing of data collection, and the resources unique to the single institution. Although results were obtained from four classes, the survey was disseminated to recently graduated students who had just started residency programs and was not distributed to the new matriculating class. Importantly, UMMS does not utilize the typical 2+2 curriculum. Instead, pre-clinical studies occur only during the first year. First year students must adapt quickly to the rigorous pace of medical school. This accelerated curriculum likely compounds expected stressors experienced by medical students when they transition to medical school [18]. The survey response rate was 53%, which may limit the generalizability of the results. Nevertheless, respondents in our survey were comparable with regard to sex and race/ethnicity to all US medical school graduates in 2018–2019 [19]. The timing of the survey during the first wave of the COVID-19 pandemic may have led to a higher rate of mental health concerns than prior to pandemic. Questions about utilization of, and satisfaction with, specific sources of mental health services cannot be extrapolated to the larger US medical school community, because given local resources will vary between schools. Although questions regarding local resources cannot be generalized to US medical schools, asking those pointed questions may help other schools learn about student preferences and needs for additional resources.

Burnout has been defined as “a maladaptive response to chronic stressors manifested by emotional exhaustion, cynicism, and low sense of accomplishment.” In this study, students were asked to use their own definition when answering the question on burnout, although exhaustion was given as an example of a burnout symptom. Different rates of burnout may vary with how it is defined and asked; however, the rates of burnout in this study were comparable to those of other medical student studies [1, 20].

Based on this evaluation, steps were taken to re-evaluate The University of Michigan Medical Student Mental Health Program, and an ongoing workgroup was established consisting of students, deans, psychiatrists, and other stakeholders. The following key program goals were identified: (a) increase access to mental healthcare by increasing the number of psychiatrists and psychologists available specifically to medical students; (b) establish an opt-out check-in process through which students have the opportunity to meet one-on-one with mental health counselors to identify students who may need or benefit from mental health services, normalizing the process and reducing the stigma surrounding mental healthcare; (c) assist students in finding suitable and available

mental healthcare providers to alleviate the burden of securing treatment on one’s own during a time of stress; and (d) integrate programmatic protections to separate mental health service utilization from each student’s academic record. Re-administration of this survey after program implementation will help identify the impact of these proposed improvements and guide further changes.

The impetus, design, and execution of this study came from medical students, with guidance from experienced faculty. The medical student perspective as presented here not only identified needs, preferences, and barriers, but also led to a student-driven effort to improve the infrastructure supporting their access and willingness to utilize mental health services when needed. At a time when the pandemic has refocused attention to the emotional well-being of medical students and professionals, these findings may offer guidance to other academic institutions for facilitating access and use of mental health services within their own communities.

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Declarations

Ethical approval This study was approved by The University of Michigan Institutional Review Board (HUM00183042).

Disclosures On behalf of all authors, the corresponding author states that there is no conflict of interest.

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