

# Mental Health Services Use Among Medical Students: Perceived Stigma and Barriers to Care

Mikaela L. Rodriguez<sup>1</sup> · Andrew K. Corse<sup>1</sup> · Lee D. Rosen<sup>1</sup>

Published online: 28 February 2017

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## Abstract

**Background** Medical students experience significant rates of depression, anxiety, and burnout during their training, yet they are often reluctant to seek mental health treatment.

**Objective** This study evaluated the use of mental health services among University of Vermont (UVM) medical students, identified barriers to use, including perceptions of stigma, and compared to the previous literature on utilization at other institutions.

**Methods** A cross-sectional online survey was administered to all enrolled University of Vermont medical students in the spring of 2016. Outcome measures included use of mental health services, barriers to use, and items exploring attitudes toward seeking care and perceived stigma.

**Results** Of the 44.8% (202 of 463) students who participated in the study, 42.1% reported using mental health services in the past 12 months. The most commonly reported barriers to use of mental health services were lack of time (72.8%), lack of convenience (48.5%), and concerns about what supervisors (45%) and other students (41.1%) would think. More than one in ten students indicated that they would not seek mental health treatment even if needed. These students were more likely to have indicated that they believe other students would view them less favorably if they sought treatment.

**Conclusions** UVM medical students use mental health services at a high rate, relative to reports from previous studies. Nevertheless, their beliefs and attitudes suggest that there remain significant barriers to the use of mental health services,

including perceptions of stigma and negative impact on their careers.

**Keywords** Medical students · Mental health · Wellness · Medical education

## Introduction

Medical students experience higher rates of depression, anxiety, burnout, and other psychological distress during their training compared to the general population [1–4]. Serious consequences include higher rates of substance abuse [5] and suicidal ideation [6, 7], not to mention the potential impact on patients both in the present and future.

However, it appears that medical students are reluctant to seek treatment and underutilize mental health services during medical school, in part, due to concerns such as a lack of confidentiality and fear of stigma related to mental health [8–10]. A recent study of Yale medical students revealed that one third of the students agreed with the statement “I have mental health needs for which I do not seek care” [11]. Of concern, a study of 769 medical students found that 70–80% of students that screened positive for moderate-to-severe depression had not been formally diagnosed with depression and were not being treated for depression. Those students were also more likely to endorse perceptions of mental health stigma from their peers [12]. Other prominent barriers to mental health treatment that have been reported include accessibility and time commitment [8].

In order to replicate and extend such findings, the objectives of this study were to evaluate the use of mental health services among University of Vermont (UVM) medical students and to assess barriers to seeking treatment, including perceptions of stigma, to identify interventions for improvement.

✉ Andrew K. Corse  
andrew.corse@med.uvm.edu

<sup>1</sup> College of Medicine, University of Vermont, Burlington, VT, USA

## Methods

### Participants

A total of 463 first- through fourth-year University of Vermont College of Medicine students were invited by e-mail and social media to participate in a one-time, anonymous online survey. Provided in the survey was a study information sheet as well as information about help available for mental health concerns. The University of Vermont Institutional Review Board declared the study exempt.

### Study Measures

The online survey included items assessing use of mental health services, perceived barriers to use, and perceived stigma related to use. To assure students their responses would remain anonymous, the only demographic information collected was class year. The survey was created on SurveyMonkey and was set to collect anonymous responses over SSL-encrypted connections, without tracking IP addresses.

Use of mental health services was assessed by asking participants if they had used mental health services in the past year. If yes, they were asked to specify where (with the options being Counseling And Psychiatry Services (CAPS) at UVM, non-university-affiliated mental health professional, other medical professionals, and an open response for options not listed). Participants were able to select more than one option.

Perceived barriers to use of mental health services were assessed by asking participants to identify concerns, on a checklist, that might affect their decision to receive mental health treatment. Specifically, they were asked: “Which of the following potential concerns might affect your decision to receive mental health treatment (counseling and/or medication) if you were in need of these services during medical school?” Participants could choose as many barriers as applied and could provide other responses for those not listed. The question and the checklist items were adapted from Guille’s and Givens’ studies of medical interns [13] and medical students [8].

Perceived stigma related to use of mental health services and attitudes toward seeking mental health treatment was assessed by three Likert scale items adapted from a similar study of medical students [14].

### Statistical Analysis

All analyses were performed using Statwing online statistical analysis software. Using Chi-squared analyses and Fisher’s exact tests, participant responses from different class years were compared. Responses from those who had used mental health services were compared to those who did not, and responses from participants who disagreed or strongly disagreed

with the statement that they would seek treatment were compared to those who had chosen strongly agree, agree, or neither. All analyses were based on a 95% CI.

## Results

A total of 202 of 463 medical students participated in the survey (43.6% response rate). The response rates by class year are presented in Table 1.

Overall, 42.1% (85/202) of students reported using mental health services in the past 12 months. Second- and third-year students reported significantly more use of mental health services compared to first- and fourth-year students (18/52 [34.6%], 25/51 [49%], 23/44 [52.3%], 19/55 [34.5%] first-, second-, third-, and fourth-year students, respectively,  $P = 0.02$ ). There were no other significant differences between class years and use of mental health services. Of the 85 students who reported using mental health services, most reported using services at CAPS (48/85; 56.5%), followed by non-university-affiliated mental health professionals (29/85; 34.1%), and other medical professionals (18/85; 21.2%). In addition, 15.3% (13/85) of those students responded that they had used mental health services elsewhere, with 7/13 specifying that they had received services at the UVM Behavior Therapy and Psychotherapy Center (the cognitive-behavioral training clinic in UVM’s Psychology Department).

Table 2 shows the frequencies of the medical students’ reported barriers to utilizing mental health services. Only 10% of students reported having no concerns about receiving mental health treatment during medical school. The most commonly reported barrier was lack of time (147/202; 72.8%) and 48.5% of students reported a lack of convenient access to care (98/202). Many students indicated that concerns about what supervisors (deans, residents, faculty) would think (91/202; 45%), concerns about what fellow medical students would think (83/202; 41.1%), and concerns about confidentiality (79/202; 39.1%) could affect their decision to receive mental health treatment. High percentages of students reported concerns that mental health treatment could end up on their academic record (55/202; 27.2%), that there was a lack of effective treatment (48/202; 23.8%), and that they lacked information about how/where to obtain services (43/202; 21.3%). Students reported several other barriers in the free-response section of this item, including cost of treatment (reported by three students), concerns about matching into residency programs, concerns about medical licensure, and concerns related to lack of time/lack of convenience.

Those students who had used mental health services in the past year—relative to those who had not—were significantly more likely to have concerns about what their supervisors would think (55.3 vs. 37.6%  $P = 0.015$ ). Also, when compared to other class years, first-year students were

**Table 1** Response rate by class year and percent utilizing mental health services

Class year	1st	2nd	3rd	4th
Response rate by class	52/116 (44.8%)	51/117 (43.6%)	44/123 (35.8%)	55/107 (51.4%)
% using mental health services	18/52 (34.6%)	25/51 (49%)	23/44 (52.3%)	19/55 (34.5%)

significantly more likely to identify lack of effective treatment as a barrier (36.5 vs. 19.3%;  $P = 0.015$ ) and were significantly less likely to identify lack of time (61.5 vs. 76.7%  $P = 0.035$ ) and lack of convenience (34.6 vs. 53.3%;  $P = 0.02$ ) as barriers.

Table 3 shows students’ responses to questions about attitudes toward help-seeking and perceived stigma related to mental health treatment. In response to the statement “I would seek treatment for an emotional/mental health problem were one to arise during medical school,” 69.3% of students agreed or strongly agreed. Not surprisingly, students who had used mental health services were significantly more likely to strongly agree that they would seek treatment compared to those who had not (47.1 vs. 6.8%  $P < .00001$ ). First-year students were more likely to strongly disagree or disagree that they would seek treatment compared to fourth-year students but the difference was statistically insignificant (19.2 vs. 9.1%  $P = 0.17$ ).

Overall, 33.2% of students agreed or strongly agreed that fellow medical students would view them less favorably if they knew that they had used mental health services: (67/202) 33.2% disagreed (67/202), 5% strongly disagreed (11/202), and the remaining 28.2% were neutral (57/202). There was no significant difference among class years or among those who had used mental health services.

Similarly, 34.7% of students agreed or strongly agreed that their supervisors (e.g., deans, residents, faculty) would view them less favorably if they knew that they had used mental health services (70/202), 30.2% were neutral (61/202), and 35.1% disagreed or strongly disagreed (71/202). There was no significant difference among class years or among those who had used mental health services.

Students who disagreed or strongly disagreed that they would seek treatment were significantly more likely to agree

or strongly agree that other students would view them less favorably (57.1 vs. 29.3%  $P < .006$ ), and they were insignificantly more likely to agree or strongly agree that supervisors would view them less favorably (50 vs. 32.2%,  $P = 0.09$ ).

## Discussion

### Use of Mental Health Services

UVM medical students, across all class years, have a relatively high rate of mental health service utilization compared to those of other institutions that have published data. While the literature remains limited (many studies only report prevalence of utilization of mental health services for students with particular outcome such as depression or burnout), one study reported 19% of fourth-year students having a mental health provider [11], another reported 12–14% of students using mental health services in the past 3 months [15], and a large multi-site study found 43% sought help for emotional problems in the past 12 months but that number included those that sought help from friends, family, and deans [14]. However, it remains unclear whether UVM’s increased use of mental health services represents an elevated need for mental health services or a greater willingness to seek help. The latter seems likely, since there is no evidence—from the AAMC Graduation Questionnaire results, for example—that UVM medical students have particularly high rates of mental health problems. Nevertheless, this remains an important topic for future investigation.

Every year, the Wellness Committee (a student-led group) at the medical school organizes a “Mental Health

**Table 2** Barriers to use of mental health services reported by UVM medical students

Barrier	<i>n</i> (%)
Lack of time	147 (72.8)
Lack of convenient access to care	98 (48.5)
Concerns about what supervisors (deans, residents, faculty) would think	91 (45.0)
Concerns about what fellow medical students would think	83 (41.1)
Concerns about confidentiality	79 (39.1)
Concerns that it would end up on academic record	55 (27.2)
Lack of effective treatment (medication or counseling would not help)	48 (23.8)
Lack of information about how/where to obtain services	43 (21.3)
None, no concerns about receiving mental health treatment	21 (10.4)
Other	12 (5.9)

**Table 3** Attitudes toward help-seeking and perceptions of stigma

	n (%)					Weighted avg. (±SD)
	Strongly agree [1]	Agree [2]	Neither agree nor disagree [3]	Disagree [4]	Strongly disagree [5]	
I would seek treatment for an emotional/mental health problem... <sup>a</sup>	48 (23.8)	92 (45.5)	34 (16.8)	26 (12.9)	2 (1.0)	2.22 (±0.98)
Medical students would view me less favorably if they knew... <sup>b</sup>	11 (5.4)	56 (27.7)	57 (28.2)	67 (33.2)	11 (5.4)	3.05 (±1.02)
Supervisors would view me less favorably if they knew... <sup>c</sup>	12 (5.9)	58 (28.7)	61 (30.2)	56 (27.7)	15 (7.4)	3.02 (±1.05)

<sup>a</sup> I would seek treatment for an emotional/mental health problem if one were to arise during medical school

<sup>b</sup> Fellow medical students would view me less favorably if they knew that I had received treatment for an emotional/mental health problem

<sup>c</sup> My supervisors (e.g., deans, residents, faculty) would view me less favorably if they knew that I had received treatment for an emotional/mental health problem

Panel,” wherein second—fourth-year students talk about their experiences seeking mental health treatment and give advice to first-year students about how, where, and when to go to seek help. This is, historically, a well-attended event. Our observations suggest that, for the first-year students, seeing successful, upper-level students acknowledging their vulnerabilities and their needs sends a powerful message about the value of help-seeking. UVM also weaves the importance of personal wellness into the first-year curriculum through the Professionalism, Communication, and Reflection course. Whether or not these factors set UVM apart from other schools in promoting help-seeking is an excellent topic for future research that we plan on investigating.

That said, more than half of UVM students’ report not seeking mental health care during their time at the College of Medicine, and we wonder how many of those students are struggling with emotional difficulties and other unmet treatment needs. Future studies should explore the unmet needs for mental health services among UVM College of Medicine students by incorporating assessment tools such as the PHQ-9 to screen for depression, as has been done in other studies of medical students [12] and medical interns [13] or the Maslach Burnout Inventory and Medical Outcomes Study Short Form (SF-8) to assess for burnout and mental and physical quality of life [14]. This may be especially important given the findings of one study at a medical school with an accelerated curriculum, such as UVM’s, where the preclinical curriculum is completed in 1.5 years instead of 2, which found much higher rates of burnout and depression compared to those of other medical schools [1]. Multi-site studies should compare levels of psychological distress at schools with an accelerated preclinical curriculum, compared to traditional 2-year curricula.

## Barriers

Our students reported barriers to care similar to those found in the literature [8, 10, 11, 13], with factors related to time and convenience being the most prominent, followed by fear of stigma from students and supervisors, concerns about confidentiality and reporting on their academic record, and finally a lack information or disbelief in efficacy and lack of information about how to access mental health services.

The easiest barrier to target is the lack of information about how or where to obtain services. The Wellness Committee has attempted to distribute this information online and during the Mental Health Panel but clearly more effective methods of distributing such information should be investigated.

Consistent with other studies [11], the barriers of time and convenience seem to increase over the course of medical education with first-years reporting significantly fewer concerns related to time and convenience compared to fourth-years. Considering that this is a major barrier to self-care reported by our students, considerable attention should be paid to how we can change perceptions about the accessibility of mental health resources, especially those in their clerkship years. That means either creating more accessible services or helping students remain aware of the services we have or both. Another important area for intervention revealed by this study is the increased concern of the first-years that treatment would not be effective for them. It is possible that this finding is influenced by the fact that at the time of the survey, first-year students had not yet formally learned about psychiatry, psychopharmacology, and psychotherapy in their Neural Science course, which comes at the end of the first year. However, given that first-year students report fewer barriers such as time and convenience, efforts should be made to increase their

awareness of the efficacy of treatment prior to the conclusion of their first year.

### Attitudes Toward Help-Seeking and Perceived Stigma

It is concerning that more than one in ten students (13.9%) reported that they would be unlikely to seek treatment for an emotional/mental health problem. This finding appears to be reflective of a phenomenon seen in medical schools in general and not specific to our institution given that a large multi-site center found 26% of medical students reporting that they would likely not seek professional help for a serious emotional problem [14]. Similarly, compared to that study, UVM students were less likely to strongly agree or agree that students (33 vs. 51%) and supervisors (34 vs. 53%) would view them less favorably. While UVM might be faring better overall in measures of stigma and help-seeking, the importance of continued improvement cannot be underemphasized given that the students who were the least likely to seek treatment were those that perceived the most amount of stigma from their peers and supervisors.

Research on effective interventions to reduce stigma associated with mental health in the medical school setting remains limited. Interestingly, one study evaluated the efficacy of a student mental health panel, much like UVM's, and found it to have short-term pre/post effects of reducing stigma, but longer-term gains were not studied [16]. It would be useful to repeat this study with first-year students before and after the annual Mental Health Panel to look for similar intervention-related gains.

### Limitations

This study has several limitations. First, the response rate was 43.6%, making the results potentially susceptible to self-selection bias. Second, in order to maximize response rates, the survey was limited in length and therefore limited in its scope. To ensure students felt confident their responses would remain confidential, no identifying information or demographic data were collected other than their class year. However, this limited our ability to compare responders to non-responders. Third, the findings are based on survey data collected at a single medical school and the generalizability of these results to other medical schools is unclear. Finally, this was a cross-sectional study, and therefore, we were unable to track how attitudes early in medical school predicted later help-seeking behavior, which would be an excellent topic for future investigation.

### Conclusion

This study represents another step in assessing the use of mental health services among medical students and identifying barriers to care, including stigma related to mental health treatment. While it appears that UVM medical students are willing to seek mental health care more readily than their peers at other medical schools, significant barriers to help-seeking remain—including both logistical factors (e.g., time) and fears of stigma. There remains a subgroup of medical students who claimed that they would not seek treatment even if they were experiencing difficulties. Obviously, this poses risks for both these students and their future patients. Thus, it appears that the areas of intervention that should be targeted include increasing time available and convenience of services among students, especially those in their clerkship years, increasing first-year students' awareness of efficacious treatments earlier in their curriculum, and continuing to explore meaningful ways to destigmatize mental health in the medical school learning environment. Because the health of physicians reverberates through the health care environment and the community, it would seem crucial that we continue to work on the accessibility and acceptability of mental health care early in their training.

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