Utilization of Mental Health Services by Medical College of Wisconsin Trainees

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ABSTRACT

Introduction: The goal of this study is to describe the change in utilization of mental health services by trainees at a private medical college in Wisconsin after specific interventions were instituted by the administration.

Methods: Multiphase interventions designed to increase access to care were instituted at the student behavioral health clinic. These interventions were based on the findings of online wellness surveys distributed to the Medical College of Wisconsin during the 2016-2017 school year. The authors collected annual utilization reports of student use of mental health services at the Medical College of Wisconsin and plotted them along a timeline of specific administrative interventions.

Results: Since the 2016-2017 academic year, medical students have used an average of 1274 mental health service visits per year compared to 637 visits annually during the academic years 2010-2011 through 2015-2016. The number of mental health visits increased significantly during 2016-2017 versus the average number of visits in previous years ($P < 001$; Cohen's $d = 4.39$).

Discussion: Similar to results shown worldwide, medical students in Wisconsin experience diminished mental health relative to their nonmedical peers. Recommendations have been made to provide additional administrative support to provide increased mental health resources to medical trainees. The findings in this report imply that incorporation of recommendations from the stakeholder medical trainees may be a key feature in the successful design and implementation of these supports.

BACKGROUND

A 2018 study reports that the rates of depression and suicidal ideation are higher among medical students than similarly aged nonmedical peers.[1] Nationally, the 12-month prevalence of a major depressive episode and serious suicidal ideation reported in 2016 were 10.9% and 8.8%, respectively, for 18 to 25 year olds and 7.4% and 4.2%, respectively, for 26 to 49 year olds.[2] A recent meta-analysis reported a depression rate of 27.2% and an alarming 11.1% prevalence of suicidal ideation among medical students. Burnout rates are also significantly higher among medical students than the general population, and studies suggest that this may be the origin of future physician burnout.[3-5] High rates of depression, suicide, and burnout also have been reported among residents[6] and physicians.[7,8] In addition to adverse effects on academic performance, the consequences of poor mental health and burnout among medical students may extend into patient care. Medical student psychological distress has been associated with unprofessional behaviors and decreased empathy. Decreased empathy and burnout among residents and physicians have been correlated with increased rates of medical errors and lower quality care.[6,7] Although there is growing literature on medical student wellness at the national and international levels,[9,10] data at the state level still remain relatively lacking.

In 2017, a survey was conducted to assess medical student mental health and wellness at the Medical College of Wisconsin (MCW). It found that 3 most commonly endorsed stressors in medical school were "general lack of time," "volume of academic material," and "lack of time for self-care."[1] Nearly 12% of respondents screened positive for severe depression, and 7.4% acknowledged having had thoughts of being better off dead or of harming themselves in the last 2 weeks. Forty-three percent of respondents

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stated that while they felt they needed mental health services, they did not pursue them."[1] The survey revealed that many students do not utilize available mental health services due to lack of time, limited access, and concerns over confidentiality and stigma. This is consistent with other studies that have reported low utilization rates for mental health services by depressed medical students.[4,10,11]

This report describes the utilization rates of mental health services at the MCW student behavioral health clinic, in the context of specific interventions implemented by the institution to address perceived barriers to care, including lack of time, limited access to mental health services, stigma, and concerns about confidentiality.

Table 1. Timeline of Targeted Changes to Address Mental Health Resources for MCW Students

Timeline	Intervention	Barrier Targeted
2010	Appointment of director of student and resident behavioral health (SRBH)	—
2011	Financially supported clinic visits reduced from 8 to 5	—
2017	Change in director of SRBH	—
February 2017	Mental health survey distributed to MCW medical students	—
June, 2017	Improving session on mental health services during orientation week for medical students	Stigma, confidentiality concerns
July, 2017	Launch of Thursday afternoon clinic to coincide with protected time offered to medical students	Limited access, lack of time
2019	Relaunch of student and resident behavioral health website www.mcw.edu/thrive	Stigma, confidentiality concerns, limited access
2020	Financially supported clinic visits increased from 5 to 10; MCW starts offering SilverCloud online psychotherapy modules; Wellbeing didactic sessions added to clerkship rotations (designed and delivered by office of SRBH); Growth Mindset slides for lecturers to use (in place or in addition to wellness slides); SRBH designs supportive email template for faculty to send students following unsatisfactory grades	Stigma, confidentiality concerns, limited access

METHODS

Student Mental Health Interventions Initiated

Multiphase interventions designed to increase access to care were instituted at the student behavioral health clinic on the following timeline (See Table 1).

- February 2017: The first mental health climate survey was conducted among MCW students. It incorporated not only mental health screening items, but questions about utilization and perceived barriers to care.
- June 2017: The session on student mental health held during orientation week for the incoming class was increased from 15 minutes to 1 hour, incorporating data on heightened risk for medical trainees and wellness information. The session also featured the addition of "lived experience" presentations during which current students were asked to share stories about their own mental health struggles and how they overcame them.
- July 2017: A new medical student behavioral health clinic was developed with dedicated appointment times for students on Thursday afternoons, when students have more flexibility due to the absence of scheduled courses during this time.
- August 2019: The website for student and resident behavioral health was revamped and relaunched with easy-to-use information about intake procedures and well-being resources.
- March 2020: SilverCloud, an online self-help program based in cognitive-behavioral therapy, was launched and offered free to students.
- July 2020: The school increased from 5 to 10 the number of unbilled visits available to students. At the same time, a student assistance program was introduced to offer students more options for care. This program offered a network of mental health providers across the state as well as legal, financial, and wellness consultations.
- Early 2021: A culturally inclusive well-being tab was added to the website featuring links to culturally inclusive health care/healing, spiritual, professional networking, entertainment, and fellowship resources in the wider community.

Statistical Analysis Methods

Data used for this study were drawn from annual utilization reports of mental health services at the MCW medical student behavioral health clinic for academic years 2010-2011 through 2021-2022. This anonymized data consist of student use of mental health services on campus or with contracted providers. It is compiled by school (medicine, pharmacy, graduate) and campus (Milwaukee, Central Wisconsin, and Green Bay).

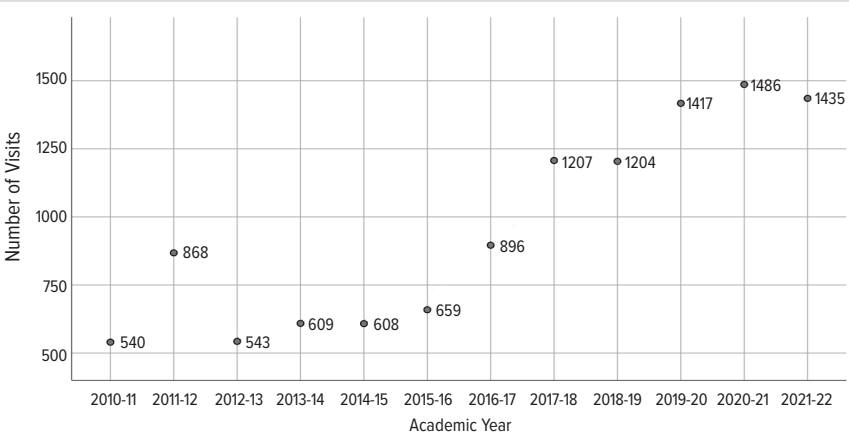
Annual utilization data were plotted along a timeline of the specific interventions (Figure). The utilization reports summarize the total number of clinic visits for mental health services from July 1 through June 30 of each academic year. Because data are available only for the number of visits and not for the number of unique student patients served during this period, we used the annual total number of visits for mental health services as the outcome.

To examine the change in utilization of mental health services visits after 2016-2017, we used Poisson regression, with the dependent variable of annual number of mental health services visits for academic years 2010-2011 through 2021-2022 and an independent variable designating pre-2016–2017 and post-2016–2017. The summary statistics for the mean annual number of visits for the academic periods 2010-2011 through 2015-2016 and 2016-2017 through 2021-2022 are calculated based on the Poisson regression results.

RESULTS

There were notable increases in medical student visits to mental health professionals within 12 months of implementing several separate interventions. These include the distribution of the focused mental health survey for medical students at MCW, increasing the duration and quality of the session on mental health services during orientation week, adjusting the availability of mental health professionals to coincide with protected time for medical students, an increase in the number of unbilled clinic visits from 5 to 10, and the upgrade and relaunch of the trainee behavioral health website.

Figure. Student Mental Health Visits per Year



Medical students used an average of 1274 mental health service visits per year from 2016-2017 through 2021-2022 compared to 637 per year during 2010-2011 through 2015-2016, a significant increase ($P < 0.001$; Cohen's $d = 4.39$). Table 2 shows summary statistics for the mean annual number of visits per academic year for 2010-2011 through 2015-2016 and for 2016-2017 through 2021-2022.

Table 2. Summary Statistics for Mental Health Services Utilization per Academic Year

	Mean	SE	*P* value	95% CI
No. of visits per year			< 0.001	
2010-11 through 2015-16	637.83	57.10		522.48 – 778.64
2016-17 through 2021-22	1274.17	80.71		1106.45 – 1467.31

DISCUSSION

This is the first report to our knowledge that describes the effect of targeted infrastructural changes at a medical school on the utilization of mental health services by medical students in Wisconsin. Prior research utilizing wellness surveys at the University of Wisconsin School of Medicine and Public Health and MCW demonstrated that Wisconsin medical students experience depression and suicidal ideation at rates greater than those reported in the general population but similar to rates found among medical students more broadly.[1] The initiation and implementation of systemic interventions designed to increase access to care coincided with a steady increase in utilization of mental health services, including clear upward spikes in utilization that coincided with the following specific interventions.

Curriculum changes designed to address stigma and educate medical students about measures to protect confidentiality: The session related to mental health services during orientation week for medical students was improved with respect to content and delivery, and the duration was increased from 15 minutes to 1 hour. The addition of powerful discussions during which current students shared their own lived experiences aimed to reduce stigma around mental health. Additionally, the director of student and resident behavioral health collaborated with psychiatry residents to design and deliver to each psychiatry clerkship cohort a monthly 1-hour didactic session related to student behavioral health, available resources, and students' rights to confidentiality. Institutional leadership supported this effort by identifying protected time for these sessions. We recommend that other institutions consider implementing similar interventions targeted at specific junctures in students' training, such as periods of high stress and times when students are already immersed in learning about mental health.

Specific measures aimed at increasing access to mental health services: Institutional leadership designated Thursday afternoons as protected time for all medical students. At the same time, there was an intentional and focused overhaul of staffing and infrastructure at the student behavior health clinic combined in addition to the introduction of a student assistance program, which offered students more options for care, more scheduling flexibility, and a more diverse provider panel. We recommend that other institutions consider implementing similar interventions, which enable synchronization of protected student time and availability of mental health resources, including outpatient psychotherapy and medication management sessions.

It is also worth noting that when the number of unbilled clinic sessions per student was increased from 5 to 10, utilization of mental health services increased. It does not appear that this increase is due to increased distress among MCW learners, rather we suggest that students may be particularly vulnerable to discontinuing treatment if they are required to pay for it themselves. One measure of acuity is the Interactive Screening Program, an anonymous self-assessment instrument from the American Foundation for Suicide Prevention.[12] While it is voluntary and a relatively small number of students elect to participate (typically less than 10%),

acuity data is available for several years, including 2014-2016 and 2017-2019. The average level of acuity for all respondents (on a scale of 1 to 3, with 1 representing the highest acuity) for the years 2014-2016 was 2.28. The average level of acuity for 2017-2019 (covering the largest increases in utilization over the previous 3-year period) is 2.20.

Study Limitations

This study has several limitations. Potential confounding factors to consider include the establishment of specific curricula aimed at reducing stigma and bolstering self-care (eg, the REACH curricula in 2018[13]) and direct and indirect effects of the COVID pandemic. Future research may include studies that measure sustainability of such interventions, replicating this study at other institutions, and ongoing collection and analysis of stakeholder information to ensure the continuing evolution of such services.

CONCLUSIONS

Overall, the timeline reported in this study suggests that there was a direct correlation between the utilization of behavioral health services and specific interventions, namely enhancement of the introduction to mental health services during orientation week, including discussion of lived experience; opening appointment times to align with protected time for students; raising awareness through the website, surveys, and other digital resources; addressing stigma and confidentiality concerns through information campaigns; and increasing the number of clinic sessions offered at no cost to students.

Apart from the tangible intervention of increasing the number of unbilled sessions, the rest of the initiatives have to do with increasing access through scheduling ease and reducing barriers to care by addressing stigma and confidentiality concerns. Our findings highlight the value of integrating mental health interventions at an institutional level and their impact on the utilization of mental health services.

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