

Addressing Burnout: A Narrative Medicine Curriculum for Millennial Medical Students

Eugene C. Lee, Anne M. Jacobson, Monica Maalouf
Loyola University Medical Center, Maywood, United States

Medical school is a stressful time for physicians in training and correlates with an increase in rates of burnout. In addition to typical stressors, millennial students in particular may face additional challenges as studies suggest they tend to learn differently than their older counterparts. Teaching medical students' techniques to address burnout, and developing curriculum that addresses social media in medicine, may help students build skills to mitigate burnout during their future careers. Medical educators at the Stritch School of Medicine created a narrative medicine elective for students in their clinical years with this philosophy in mind. Evaluation of the curriculum from pre- and post-elective surveys showed that the elective was effective in addressing symptoms of burnout, specifically emotional exhaustion and depersonalization, and improved student comfort with social media as a medical professional.

Keywords: burnout, narrative medicine, social media, millennial medical student

Introduction

Medical school is a stressful time. Students experience challenges specific to medical education in addition to normal life stressors, all of which may predispose to burnout (IsHak et al., 2013). Feelings of burnout may include depersonalization, emotional exhaustion, and a decreased sense of personal accomplishment. Studies suggest that the third year of medical school (Boudreau, Santen, Hemphill, & Dobson, 2004; Santen, Holt, Kemp, & Hemphill, 2010) is when feelings of burnout are highest. At Stritch School of Medicine (SSOM), similar to other medical schools, electives and opportunities within the first and second years aim to address student wellness and burnout prevention. There are not, however, many opportunities to explore these issues in the 3rd and 4th years of medical school, as these students are often engaged in clinical rotations.

Additionally, educators at SSOM were finding an increasing number of millennial medical students choosing not to attend lectures in their pre-clinical years. Traditional teaching modalities, such as independent reading followed by large-group lectures, were not felt by students to be conducive to their learning. Studies have found that millennial students prefer teaching modalities that include interactive and experiential methods

Eugene C. Lee, MD, Assistant Professor, Department of Family Medicine, Loyola University Medical Center, Maywood, United States.

Anne M. Jacobson, MD MPH, Affiliate Assistant Professor, Department of Family Medicine, Loyola University Medical Center, Maywood, United States.

Monica Maalouf, MD, Assistant Professor, Department of Internal Medicine, Loyola University Medical Center, Maywood, United States.

of learning, or “flipped classroom” methods (Williams, Medina, Medina, & Clifton, 2017; Skiba & Barton, 2006). Incorporating social media in medical education has been associated with improved exam scores, empathy, and reflective writing amongst learners (Cheston, Flickinger, & Chisolm, 2013), but few medical educators have fully embraced this as an instructional method (Vogelsang et al., 2018).

Studies have also shown that teaching the arts and humanities may help students to be more self-aware and empathetic (Katz & Khoshbin, 2014), and empathy may be protective with respect to burnout (Von Harscher et al., 2018). In 2018, educators at SSOM created a narrative medicine elective for third- and fourth-year medical students to help students explore the humanities, to mitigate burnout, and to engage students in active reflection. The elective was crafted to include novel approaches to teach narrative medicine to millennials and include social media as a form of narrative.

As part of the normal feedback process to improve the curriculum, students are given a post-elective anonymous survey to ensure the elective goals are met and to suggest improvements for the future. Feedback from 2018 revealed that students were interested in exploring resources they perceived to be more relevant, particularly the use of social media as a medical professional. As such, the 2019 curriculum was updated to address the interests and concerns of millennial students enrolling in the elective.

Methods

Curriculum Overview

The 2019 curriculum is outlined in Table 1. Each month had an overarching theme. Each week students engaged in multiple narrative formats related to that theme, followed by an assignment to post a personal response to one or two writing prompts and respond to at least two of their colleagues’ posts. The use of social media was incorporated throughout the course, having students consider and evaluate narratives that were posted in various online formats including blogs, videos, podcasts, and interactive platforms (like Instagram and Twitter). Students were also encouraged to reflect on their own social media utilization during some of the sessions.

Table 1

Narrative Medicine Curriculum

Monthly theme	Focused weekly content
Narrative as medicine	Week 1—What is narrative medicine
	Week 2—Writing as a doctor
	Week 3—Your story
Doctor and patient narratives	Week 1—Patient narratives and baselines
	Week 2—Stories of otherness
	Week 3—Portrayal of medicine in culture
Medicine as relationships	Week 1—The difficult patient
	Week 2—Honesty
	Week 3—To let in, or not? Provider-patient relationships

Notes. *Curricular material included poems, written stories, academic handouts/articles, podcasts, online forums/blogs, YouTube videos, comics, art, and use of social media. **Curricular engagement included meetings (in- person and virtual), online discussion board, and a field trip to the Art Institute of Chicago.

Study Participants

Students enrolled in SSOM’s Narrative Medicine Elective. Students are in their 3rd and 4th years of medical school.

Data Collection

Surveys were created using Google Forms. They were anonymous and did not affect the course's pass/fail grading. Demographic data were included in the survey. The surveys included the abbreviated Maslach Burnout Inventory to evaluate for burnout and questions regarding social media use as a medical professional. The Maslach Burnout Inventory asked questions related to emotional exhaustion, depersonalization, and feelings of decreased personal accomplishment, with a higher score correlating with stronger feelings in that category. The abbreviated Maslach Burnout Inventory scores from 0 to 18 for all three categories.

Enrolled students took a pre-elective survey and a post-elective survey. The pre-elective survey was available two weeks prior to the beginning of the elective. All enrolled students were emailed the link, and the survey was available on the elective website. The post-elective survey was available for one month after the elective ended. The post-elective survey included an evaluation of the elective itself, and the results of the survey were used to evaluate the curriculum and suggest areas for improvement. These results were taken into consideration for adjusting the 2020-2021 elective curriculum.

Results

Table 2 shows that the pre-elective survey was completed by 22 students, and the post-elective survey was completed by 15 students. The average age in both groups was similar, 26.68 and 26.87 years, and roughly equal numbers of males and females completed the surveys.

Survey results displayed in Table 3 show that overall, the course content and curriculum did help improve student burnout as well as comfort with social media. Specifically, the narrative medicine curriculum was effective in decreasing emotional exhaustion (9.59 to 7.8, p-value 0.014) and depersonalization (7.91 to 6.8, p-value 0.034). The curriculum had no impact on feelings of personal accomplishment (14.18 to 13.93, p-value 0.39). The curriculum increased students' comfort with the use of social media as a medical professional from 1.95 to 2.93 (p-value 0.027) on a five-point Likert scale from 1 (not very comfortable) to 5 (very comfortable).

Table 2

Demographics of Narrative Medicine Elective Students (2019-2020)

	Pre-elective n = 22	Post-elective n = 15
Gender		
Male	11 (50%)	7 (46.7%)
Female	11 (50%)	8 (53.3%)
Nonbinary	0 (0%)	0 (0%)
Average age	26.7	26.9
URiM*	6 (27.3%)	4 (26.7%)

Notes. *URiM-Underrepresented in Medicine. This was self-defined and self-identified by participants. The following descriptors were used "Black", "African American", "Mexican", "Undocumented", "Queer POC", and "Muslim/Hijab wearing women".

Table 3

Effect of Elective on Student Wellness and Comfort With Social Media

	Pre-elective n = 22	Post-elective n = 15	p-value
Abbreviated Maslach Burnout			
Personal accomplishment	14.18	13.93	0.387
Emotional exhaustion	9.59	7.8	0.014

Depersonalization	7.91	6.8	0.034
Comfort with social media as a medical professional	1.95	2.93	0.027

Discussion

The elective was created for 3rd and 4th year medical students because the clinical years are when levels of burnout often increase (Boudreau et al., 2004; Santen et al., 2010). At the beginning of the elective, students generally had medium levels of emotional exhaustion and depersonalization. Participation in the elective helped to decrease these feelings, which was a central goal in its creation. Month 2 on “Doctor and patient narratives” focused on decreasing feelings of depersonalization and Month 3 on “Medicine as relationships” aimed to improve emotional exhaustion.

The content and format of the material used also improved students’ comfort level with the use of social media as medical professionals. Narratives with technological formats were incorporated into the curriculum (i.e., podcasts, tweets, videos, blogs, etc.), and each week included a mix of formats and prompts for students to consider how the content and format affected their own perception of self and the medical profession, as well as society’s perception of medical professionals. This is often a topic not focused on in medical education.

Not all students were interested in publishing written narrative works, so exposure to art, blogs, podcasts, videos, and social media posts gave students options to express narratives in a format suited to their personality. The course creators felt that this allowed millennial students to find a method to address burnout that worked best for them.

Limitations of the curriculum and the survey include the fact that not all participants filled out the surveys. This may lead to a slight skewing of data towards those who viewed the elective as highly favorable or unfavorable. Because there was a limit of 24 students who were allowed to take the elective in 2019, the sample size of the course is small. The small sample size makes it more difficult to extrapolate these findings to all millennial medical students.

Conclusion

Medical students in the millennial age range have found traditional teaching formats such as independent reading followed by large-group lecture to be non-preferential. With these considerations, the creators of the 2019 Stritch School of Medicine Narrative Medicine Elective utilized written, visual, and aural narratives; provided opportunities for student interaction and engagement; and allowed for a flexible rate of curriculum completion.

By including visual, aural, and experiential narratives, the creators of the elective found that more students were able to be engaged in narrative medicine. This format was also effective in decreasing feelings of burnout with respect to emotional exhaustion and depersonalization and in improving confidence with use of social media as a medical professional. Based on these results, continued efforts to identify teaching modalities to engage medical students in skill-building techniques for prevention of burnout should be explored.

References

- Boudreau, D., Santen, S. A., Hemphill, R. R., & Dobson, J. (2004). Burnout in medical students: Examining the prevalence and predisposing factors during the four years of medical school. *Annals of Emergency Medicine, 44*(4), S75-S76.
- Cheston, C. C., Flickinger, T. E., & Chisolm, M. S. (2013). Social media use in medical education: A systematic review.

Academic Medicine, 88(6), 893-901. doi:10.1097/ACM.0b013e31828ffc23

- IsHak, W., Nikraves, R., Lederer, S., Perry, R., Ogunyemi, D., & Bernstein, C. (2013). Burnout in medical students: A systematic review. *The Clinical Teacher*, 10, 242-245. Retrieved from <https://doi.org/10.1111/tct.12014>
- Katz, J. T., & Khoshbin, S. (2014). Can visual arts training improve physician performance? *Transactions of the American Clinical and Climatological Association*, 125, 331-342.
- Santen, S. A., Holt, D. B., Kemp, J. D., & Hemphill, R. R. (2010). Burnout in medical students: Examining the prevalence and associated factors. *Southern Medical Journal*, 103(8), 758-763. doi:10.1097/smj.0b013e3181e6d6d4
- Skiba, D. J., & Barton, A. J. (2006). Adapting your teaching to accommodate the net generation of learners. *OJIN: The Online Journal of Issues in Nursing*, 11(2), Manuscript 4.
- Vogelsang, M., Rockenbauch, K., Wrigge, H., Heinke, W., & Hempel, G. (2018). Medical education for "Generation Z": Everything online?!—An analysis of Internet-based media use by teachers in medicine. *GMS Journal for Medical Education*, 35(2), Doc. 21. doi:10.3205/zma001168
- Von Harscher, H., Desmarais, N., Dollinger, R., Grossman, S., & Aldana, S. (2018). The impact of empathy on burnout in medical students: New findings. *Psychology, Health & Medicine*, 23(3), 295-303. doi:10.1080/13548506.2017.1374545
- Williams, V. N., Medina, J., Medina, A., & Clifton, S. (2017). Bridging the millennial generation expectation gap: Perspectives and strategies for physician and interprofessional faculty. *American Journal of Medical Sciences*, 353(2), 109-115. doi:10.1016/j.amjms.2016.12.004