ORIGINAL RESEARCH



Student Perceptions of a Reflective Writing-based Wellness Course: "Good in Theory, But..."

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Abstract

To offset disconcerting trends showing alarming rates of burnout and other types of psychological distress among medical students, many medical schools have implemented wellness initiatives for first year students as they are first adjusting to the rigors of medical school. This study examines students' attitudes toward a reflective writing-based wellness course. We conducted a thematic analysis of 97 writings that students wrote in response to a prompt asking them what they thought of the wellness course at an American Midwestern medical school. The most consistent perception that students expressed was that while they were deeply appreciative of the effort to integrate wellness into the curriculum (what we call *Good in Theory...*), they did not think it was implemented efficaciously and even, in some cases, felt that the wellness course contributed to their distress rather than alleviated it (what we call ...But...). Specifically, while the wellness course helped them prioritize wellness and fostered connection between fellow medical students, it also conflicted with their individualized notions of health and was a burden on their limited time. We discuss the findings in the context of their implications for medical education and argue that the implicit messages students internalized from the mere existence of a wellness program—that the university/faculty cares about them, they do not need to feel guilt when taking a break from medicine, they are not alone, and it is acceptable to express emotions—are all important for their professional socialization and personal well-being.

Keywords Medical student wellness · Emotional socialization · Distress · Wellness course

Introduction

It is well established that medical students have elevated rates of psychological distress, including burnout, depression/anxiety, low life satisfaction, alcohol/substance use, suicide ideation, and death by suicide [1–7]. The adverse effects of stressors on health are not mitigated by health-promoting behaviors, such as those regarding diet, caffeine, nicotine, alcohol/drugs, physical exercise, sleep, and professional help-seeking [8–11]. Based on a 2004 meta-analysis, physicians are dying by suicide at a rate nearly twice that of the general population [12]. Thus, more attention needs to be paid to the early risk factors of distress in medical school, where it originates, and then progressively worsens throughout training [1, 13, 14].

To offset these disconcerting trends among medical students—and to comply with the Liaison Committee on Medical Education's (LCME) accreditation requirements [15]—many medical schools have implemented wellness initiatives for first year students as they are adjusting to the rigors of medical school. Such initiatives typically come in the form of stress reduction programs that focus on health behaviors, such as meditation/yoga, physical exercise, and sleep. Other interventions emphasize coping strategies, such as time management, peer social support groups, and psychological counseling services [16–19]. In addition to individual-level strategies, some medical schools have also integrated wellness initiatives directly into the curriculum, such as instituting pass/fail grading schemes, faculty mentoring programs, reduction of contact hours, and learning communities [16, 20, 21]. Research, including one 2013 systematic review and two meta-analyses published in 2016 and 2017, suggests that both individual and structural level wellness interventions can be successful in improving well-being, although findings are mixed [19, 22–24].

One structural level wellness initiative that typically contains multiple individual-based health promotion strategies within it is the integration of a wellness course into the



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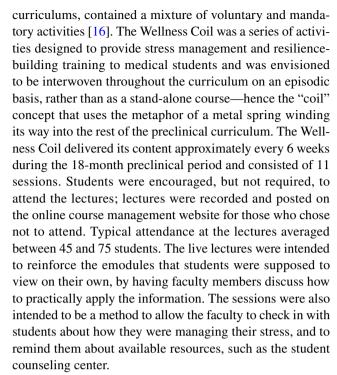
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pre-clinical curriculum [25]. Within such courses, a range of activities is usually covered that address physical, emotional/spiritual, intellectual, interpersonal, and environmental wellness [25]. Of the studies that systematically evaluate the effects of mandatory wellness courses on pre-clinical student well-being, some of them report improvements [26], while others do not [27, 28]. Studies on non-required wellness courses show the same inconsistencies on health outcomes and carry the additional burden of selection effects [29, 30]. Systematic reviews published in 2013 and 2016 highlight other methodological issues complicating efficacy studies, such as a lack of standardization in the operationalization of outcomes, randomized control groups, and longitudinal data [19, 31]. Thus, it is difficult to assess the effects, and particularly the long-term effects, of wellness courses.

Survey studies that operationalize outcomes using validated scales to measure burnout/distress often present the methodological challenges that produce the inconsistent findings noted above [27–30]. Much less attention has been given to qualitative analyses that place student perceptions as the object of focus independent of quantitative health outcomes. To our knowledge, there is only one exception that positions student perceptions as central; Lee and Graham identified four themes regarding a wellness course to support their conclusion that students generally viewed the course favorably [32]. However, the course was an elective, so students who were interested in implementing wellness strategies into their lives presumably selected themselves into the course and, thus, the sample. The lack of studies that privilege student perceptions seems paradoxical given that the intent of any wellness intervention is to decrease distress. That is, if students, for whatever reason, resent or do not enjoy a wellness course, in particular one that is mandatory, those negative perceptions might determine whether that course is effective in reducing distress. At least one study finds support for that claim in that students' subjective opinions about the usefulness of a wellness program are related to quantifiable measures of burnout [33]. For the reasons discussed above, the current study places student perceptions as the focal point by conducting a thematic analysis of preclinical medical students' reflective writings about a wellness course to identify their attitudes toward the course and whether it benefitted their personal well-being. Ultimately, the results of this study can be used to develop effective interventions to counteract the long-term effects of distress on first-year medical students' well-being.

The Wellness Coil

This study investigates the attitudes of preclinical medical students at a Midwestern American medical school toward a "Wellness Coil," which, like the majority of other US medical schools who have integrated a wellness course into their



In addition to the transmission of health information and general promotion of students' focus on wellness, reflective writing was a core component of the Wellness Coil. The use of reflective practices, especially reflective writing, is an increasingly popular tool in medical education [34–36]. Models for incorporating reflective writing in medical education, often coupled with the sharing of individual writings, point to growth in emotional and professional socialization, mindfulness, narrative competence, increased empathy, and physician wellbeing as key pedagogical outcomes [34–37]. Evidence also suggests that both sharing their own reflective writings, as well listening to others, can be effective resources for medical students as they work through stressful situations [36, 37]. Thus, in alignment with best practices for reflective writing exercises in medical education [35], at the end of every live lecture, the faculty set aside time for a short reflective writing assignment. Students were given 7 minutes to write in response to a specific prompt. It is important to note that within medical education, reflective writing is typically used for medical students to reflect on their clinical experiences in an effort to improve future patient care [38], whereas here the primary goal was to enhance personal wellbeing through emotional expression more generally. Thus, the writing prompts were much broader (e.g., "write a poem to an inanimate object," "Ahh, the holidays...," and "I still think about the time...") than prior research documents on reflective writing about clinical experiences.

After the 7-minute writing time, volunteers were asked to read their reflections verbatim, with no other context before or after their reading. Students and faculty were instructed to then discuss the writing in terms of content themes, but



asked not to talk directly to the author. Students not attending the lecture in person were asked to complete the writing assignment on their own by midnight that day via the course management software. The current study analyzes a set of these reflective writings to answer the research questions: "What are preclinical medical students' perceptions of a wellness course and do they believe it enhanced their personal well-being?"

Methods

Procedures/Participants

This study examines the content of the students' responses to the 11th and final writing prompt, done in October 2018 of the students' second year, which asked, "Here's what I think about this wellness program..." Of the 131 medical students who were enrolled in the Wellness Coil in August 2017 and were invited to participate in the study, 97 medical student reflective writings are included in this analysis, constituting an approximate response rate of 74%. Some of the 131 medical students did not consent to participate in the study; some withdrew from the program in the year between obtaining consent and the writing of the prompt analyzed here, and some did not submit this reflective writing. All de-identified writings were uploaded for analysis into Dedoose 8.1.8. (SocioCultural Research Consultants, UCLA), a web-based, mixed methods data analysis program. All study procedures were approved by the Institutional Review Board (522-17-Ex).

Data Analysis

To identify students' perceptions toward the Wellness Coil, the first and second authors engaged in a process consistent with an interpretive thematic analysis approach to qualitative data analysis that seeks to identify patterns found within the data and interpret those themes [39]. Specifically, following best practices of thematic analysis techniques [39], we coded using a hierarchical 3-step process, beginning with open coding, then moving on to axial coding, and completing the process with selective coding, as described in more detail below.

The first author analyzed the data from February 2019 to June 2019, beginning with an initial read-through of all 97 reflective writings, using open, line-by-line coding methods. During the initial line-by-line coding, the first author split the codes into "positive" or "critical" comments about the wellness course. Under these parent codes, the first author identified many sub-codes. Beginning in September 2019, the other investigator independently did an initial read-through of all 97 of the writings and then coded approximately two-thirds of the writings for overall tone, as well as line-by-line coded under the pre-established parent codes

of positive aspects and criticisms. From September 2019 to July 2020, we used axial coding to refine broad themes by relating coding categories to subcategories and, during this time period, engaged in a consensus-based process in which we had regular discussions, condensing and adjusting codes until all codes were agreed upon.

After discovering that almost all of the medical students simultaneously discussed both positive and negative opinions about the wellness course, we assessed each of the reflective writings as a whole as having either a "positive" or a "critical" tone, meaning that the student generally liked the wellness course as it currently was or that the student was primarily critical of the wellness course. A code of "balanced" was applied to the few reflective writings in which an overall tone was not discernible. We conducted an inter-rater reliability test for the overall tone code among two of the investigators and found a pooled kappa of 0.76, indicating "good" agreement between the coders [40].

Results

Good in Theory, But

As shown in the thematic map in Fig. 1 and discussed below, we organize the results under the two broad categories of the positive aspects of the wellness course (*Good in Theory...*) and the aspects of which students were critical (....*But...*). Under these two a priori categories, several themes and overlapping subthemes emerged, as depicted in Fig. 1.

About 56% of students perceived the wellness course favorably as it was, while about 40% of students were primarily critical of the course as it was structured. About 4% of the 97 reflective writings contained a balance of positive and critical comments and an overall positive or critical tone was not identifiable. Students provided a vast array of different suggestions on how the wellness program might be improved, ranging from incorporating more guest speakers to cooking sessions to bringing in dogs to movie outings. Across these many specific suggestions, no clear patterns emerged and, in fact, oftentimes the suggestions were contradictory across students. The most consistent perception expressed in the reflective writings was that, while the students were deeply appreciative of the effort to integrate wellness into the curriculum and they liked the idea of the wellness program (what we call Good in Theory...), they did not think it was implemented efficaciously and even, in some cases, felt that the Wellness Coil contributed to their distress rather than alleviated it (what we call ... But...). To illustrate the extent to which students shared this sentiment, Table 1 contains an exhaustive list of the quotations in which students expressed praise for the idea of the wellness program, but criticism regarding its implementation.



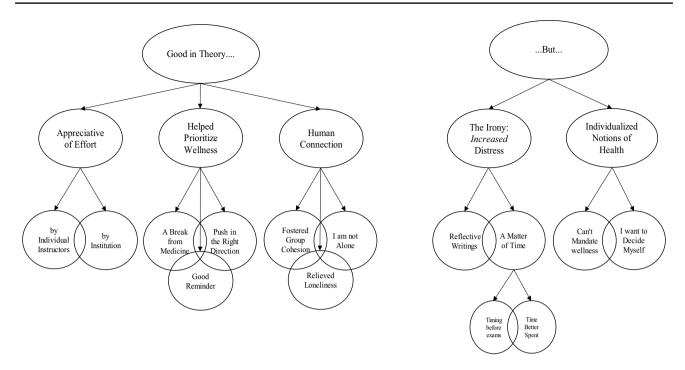


Fig. 1 Thematic map of student perceptions

Good in Theory

Appreciative of Effort

Even among those who adamantly disliked the wellness course, many students expressed appreciation of the efforts made by the individual instructors, as well as the institution as a whole. A lot of students felt as though the mere existence of a wellness course, regardless of its content, was an important goodwill gesture that the university cares about them, as one student said:

It was incredibly nice to know that there is so much concern over our wellness...and that the administration and professors are starting to care about us as people and not just exam scores, so please don't stop caring! Thanks for a great year and all of the hard work you put into it. Med Student #61

Helped Prioritize Wellness

Only a few students discussed specific improvements in health behaviors or personal well-being as a direct result of the course, such as one who credited the course with leading her to take on new exercise habits long-term [Med Student #77]. Nonetheless, many students discussed how the wellness course helped them prioritize wellness in a

way that they would not have been able to do otherwise, as one student said,

I feel like most of the things we talked about were things I knew were good for me – sleeping, time management, health relationships, but bringing it up in this organized setting really helped me prioritize it in my own life. Med Student #62

In other words, the course served as "nice little monthly reminders" [Med Student #86], or a "push in the right direction" [Med Student #69]. A few students went so far as to say that the course helped to relieve the "guilt" they felt whenever they did anything outside of medicine by implicitly giving them "permission" to periodically relax. In fact, as this quote from Med Student #62 describes, many students saw the class meetings themselves as a valuable psychological "break" from the all-consuming nature of medical school:

...[O]n the days we had wellness, I really did enjoy the sessions. Just going to them gave me some stress relief, because I could take some time in lecture hall to sit and relax a little more, listen to some interesting information, feel cared about by a faculty member, and not worry about getting tons of scientific information drilled into my head that I would have to remember.



Table 1 Support for Good in Theory, But

Excerpt of direct quotation	Med student #
I think that it is a good idea in theory and you were super great to work with and seem really nice, but	8
I think it was well intended, but I greatly appreciate your efforts	14
I think wellness is an incredibly important skill to learn for our future careers as physicians	16
I like the idea of this wellness program, but	17
A step in the right direction	19
I think the general idea of this wellness program is a good idea. ^a	22
While Wellness classes are good reminders of healthy habits at times,	23
I really appreciate that you put in a lot of effort and time	25
I think the spirit of it well-intentioned and uplifting in the wake of what is a true crisis in the medical fieldThe wellness program has a lot of potential	29
Overall, I think that the program is a step in the right directionI think it is a great idea, but	30
Let me start off by saying that I love the idea of the wellness program	31
I really appreciate the effort put into this program. However,	32
I love the idea of the wellness program	35
I feel that the wellness program is a well intentioned supplement to our curriculum. However	38
It's theoretically a great idea	45
In theory, it's a very important thing to do but I like the space the wellness program holds in our schedule	56 59
I enjoyed the concept of the wellness coil. However,	61
I appreciate the attempt	65
I appreciate it attempt I appreciate it, but I am very appreciative of the clear support [MEDICAL SCHOOL] ^b has for its students' well being, but	67
I think it's a good thought, but	71
I think the wellness program is a great idea in theory	75
I like the concept, but	83
That does not mean I think it was a bad idea, and I have no doubt that the directors of this program had only the best intentions	91
I think the wellness program at [MEDICAL SCHOOL] ^b is very well-intentioned, but	91
I think the aims of the program are well-intended	92 97
	100
On paper, I can understand how innovative and valuable its implementation may seem Done with the best of intentions, but	100
I think the wellness program has potential, but	110
This wellness programalthough created with well-intentions,	113
I really think the Wellness portion was good as a whole, but	115

^aStatements like this that might seem to be wholly positive then go to state a negative aspect of the implementation of the wellness program. ^bThe name of the medical school is removed for anonymity

Human Connection

Another reason that the students liked the idea of the wellness course is because it gave them a chance to connect with their peers by expressing their emotions in an open space—an opportunity they felt was rare. In particular, the voluntary sharing of the reflective writings during the wellness sessions made the students realize that they were not alone in their struggles, with sentiments expressed such as those by Medical Student #34 who found comfort in realizing that her emotions were "normal":

I also really appreciate how this program helped normalize the feelings that we all have, but no one wants to talk about. One of the greatest reliefs of struggling is knowing that you're not struggling alone. This course provided the perfect, safe outlet to demonstrate that.

Related to the course relieving loneliness, several students noted that the wellness program, and specifically the practice of hearing their peers' personal thoughts/stories, fostered group cohesion and a sense of community, such as when one student remarked:

...I am a big fan of hearing what other people write. Whether it is just appreciating their writing style or listening to their story, it helped me remember that everyone has something to say. Sitting back and listening has been enough to give me a sense of community in one way or another with my classmates. Med Student #50



Students were about evenly split between those who enjoyed reflective writing and those who did not. Among those who did have positive things to say about reflective writing, they often discussed how it was therapeutic and provided a unique, nonjudgmental opportunity to express their emotions:

However, what I found the most rewarding about the wellness program was learning about my classmates in a deeper way. I learned about their struggles and challenges they face and it made me feel less alone. I feel like medical school has the potential to be a very lonely place if you allow it to be and hearing that my classmates are struggling with some of the same fears and challenges that I am facing has made a huge impact on me. Humanizing my classmates takes away from the competitive spirit that medical school often bring about and makes me realize that we really are all in it together. I have found a greater respect and admiration for my classmates who shared very intimate details of their lives with all of us, and I am inspired by their bravery. Overall, I have gained the insight that we all are just trying to figure out how to navigate this crazy thing we call medical school together. Med Student #99

But

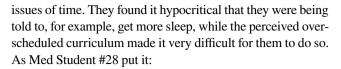
Individualized Notions of Health

Within the reflective writings, after students typically expressed gratitude for the efforts by those involved in developing and implementing the wellness course, they often then continued with a "but...." The analysis of the reflective analysis revealed a theme in which students' individualized notions of health fundamentally conflicted with the goals of this wellness course that was designed to benefit a large, diverse cohort. That is, students expressed sentiments such as "you can't mandate wellness" and one even drew on the cliché of being able to lead a horse to water, but not being able to make it drink [Med Student #104]. Furthermore, some students resented the implication that they could not manage their own wellness, as exemplified by student #91 who said:

"I have well established habits and activities I use to deal with stress related to academic obligations that I have spent years honing, and I resent the suggestion that they need further honing."

The Irony: Increased Distress

Ironically, many students claimed that the wellness course *caused* them distress, the reasons for which mostly surrounded



Don't require exercise for me. Provided me the facts and let me decide for myself whether to do that or not. Don't lecture me on sleep. Let me go home and take a nap. Don't take significant time away from my relationship. Give me the time to talk with my girlfriend. Give me my time.

The emodules that they were required to complete were seen by some as yet another thing to do and the timing of the wellness sessions were often right before an exam. In short, many students felt that their time was better spent, as one student summarizes this notion well:

As I hope the architects of this curriculum shift are well aware of by now, the amount of free time that we as students have to study (let alone relax) was often severely limited. The further deprivation of free time that this program imposed was not merely useless, but counterproductive in my view. – Med Student #91

Most students who did not like the perceived pressure of sharing their reflective writings indicated that this was one of the ways that the wellness course (ironically) added to their distress because sharing and/or listening to others was too personal, and thus, it made them uncomfortable. As one student said,

I, personally, don't like reading my writing out loud because most of it is personal. However, when there is a lot of time devoted to sharing, it feels like we have to share to fill up the time. Med Student #107

In discussing how the Wellness Coil actually caused distress despite its opposite intention, one student [#100] even called the wellness program an "oxymoron." Many students reported being grateful that, after a few weeks, attendance at the class sessions became optional, as one student expressed,

I would like to say thank you for making attendance at wellness sessions optional so that as students we can partake in wellness in our own ways [#23].

Having attendance at the sessions be voluntary is in alignment with their individualized notions of health; allowed for them to allocate their limited time as they saw fit; and let them avoid exposure to emotional expression that made them uncomfortable.

Discussion

In answering the research questions of how do students perceive a reflective writing-based wellness course and do they believe it enhanced their personal well-being,



the results lead us to conclude that students hold positive views toward the Wellness Coil because it benefitted their wellness, in three related ways. First, in coding for the overall tone of the reflective writings, we determined that the majority of students viewed the program positively, which is consistent with the few other studies that focus on student perceptions [29, 32]. Second, the data provide some evidence that the course actually aided in stress relief and even, in some cases, students' adoption of healthier behaviors, such as routine exercise. Third, the implicit messages that students internalized from the mere existence of a wellness program—the university/faculty care about them; they do not need to feel guilt when taking a break from medicine; they are not alone; it is acceptable to express emotions—are all important for their professional socialization. These are messages that they would be unlikely to receive elsewhere, in the formal or informal curriculums.

Is the Devil in the Details?

Since there was no consistent pattern found in students' suggestions as to how the details of the program could be improved, it is difficult to determine what, specifically, could be done in order for students to receive the important messages that they did without simultaneously increasing their distress by being a burden on their time or conflicting with their individualized notions of health. In this study, the majority of students were grateful that attending the sessions once a month was not mandatory, especially since the classes tended to fall right before an exam. Although it is not possible to verify, attitudes toward the Wellness Coil may not have been as favorable as they were here if attendance was mandatory. Medical education has to grapple with the opposing challenges of, on the one hand, pleasing students by making a wellness initiative voluntary and, on the other hand, avoiding compromising the scope of benefit it can have if students are able to select themselves out of it. For these reasons, only about 13% of medical schools that have a wellness curriculum make attendance mandatory [19]. The results of this study support Finklestein and colleague's conclusion that being voluntary is key to student investment in a wellness program [30].

Other than being at least partially voluntary to avoid causing distress by creating a burden on students' time, the findings of this study lead us to propose that the devil is *not* in the details. There will inevitably be individual variation in student preferences among a group of this size who are adjusting to the demands of medical school. Rather than trying to please everyone to no avail, there are likely various ways to convey the important messages to students that we identified here, that the university cares about

them, they are "allowed" to make their personal wellness a priority, and they are not alone in their emotional struggles. This study suggests that a reflective-writing-based wellness course is one of those such ways. In developing wellness initiatives, the "....but..." features may be secondary to accomplishing the "good in theory" aspects.

Limitations

This study has a few limitations that may inhibit the generalizability of the findings. First, this analysis was conducted on only one cohort within one school in one geographic area of the USA. Furthermore, the instructor who designed the course and led most of the sessions was arguably a particularly dynamic and compassionate person and so students' favorable perceptions found here may be overestimated compared to other universities. Another reason negative perceptions toward the Wellness Coil may be underestimated in our analysis is because students knew they were going to be asked to volunteer to share their writings with the class. Furthermore, the potential of sharing their writings may have prohibited them from fully expressing their personal feelings/experiences.

A final limitation of note is that this study does not measure the effect of the Wellness Coil on objective health outcomes. However, we argue that conducting a qualitative thematic analysis of students' reflective writings is a major strength of this study and that survey data would not have been able to capture the findings here about the implicit messages about emotional socialization that students were gaining from the existence of a wellness course. Nonetheless, future research should examine more objective outcomes of wellness initiatives, ideally longitudinally, and controlling for other confounding factors.

Future Research and Practical Implications for Medical Education

There is a paradox in that about half of the students reported a strong dislike of reflective writing and the public—albeit voluntary—sharing of those writings, but, at the same time, that is precisely where they found value. These contradictory findings are in alignment with both anecdotal accounts that medical students are critical of reflective writing practices [41, 42] and, conversely, with studies showing favorable attitudes by medical students [43, 44]. For example, one survey study found that only 19% of third-year medical students felt that reflective writing and group reflection activities were a waste of time, but, at the same time, they grossly overestimated the degree to which their peers felt that way (39%) [43]. The results of this study contribute to, but do not resolve, that debate, whether students consider reflective writing and group reflection activities valuable for learning and their personal



well-being remains inconclusive. Future research should seek to determine whether students in fact view reflective writing and group reflection activities positively, as well as the conditions that account for variation in such attitudes.

Regardless of whether students find value in reflective writing practices, given the exponential increase of reflective writing in medical education [38], there is the potential for "reflection fatigue" in which students feel burdened by the sheer number of reflective writing assignments they are required to complete throughout medical school [41]. Thus, medical educators should keep in mind that reflective writing is only one such tool to encourage shared emotional experiences, which should arguably be the goal of incorporating reflective writing into a given wellness initiative.

Taken together, the results of this study suggest that medical students crave what sociologists call "emotional socialization"—the process through which students learn the norms of the culture of medicine [45], including the suppression of emotional expression [46]. The findings of this study lead us to assert that although probably subconscious, students disliked and liked the Wellness Coil for the same reason: those who enjoyed it did so because the reflective writing and voluntary group sharing of those writings provided them a therapeutic outlet to express their emotions and they were able to realize that they are not alone. Those who did not enjoy writing and/or sharing their reflective writings felt uncomfortable because the prevailing cultural norm in medicine is to silence any expression of emotions as to not threaten the objective delivery of health care [46]. Thus, this study suggests that medical education should provide some sort of formal mechanism through which students are exposed to their peers' explicit expression of emotions in medical school.

Conclusion

This study contributes to the growing evidence that medical students view a wellness course positively because they believe it benefits their personal wellness—and, in particular, their emotional well-being—in various ways. Medical school can be a lonely and isolating experience [47] and emotional socialization is often relegated to the "hidden curriculum" [48, 49] in which students are left to learn appropriate behaviors and "feeling rules" [50] by watching others and individually figuring it out on their own. The reflective writing-based Wellness Coil analyzed here arguably brought emotional socialization out of the hidden curriculum by providing relief from loneliness, validating students' feelings, and creating a sense of "community in a competitive environment" [29, 32]. Given the plethora of research showing that feelings of loneliness adversely affect a vast array of physical and mental health outcomes [51–54], the relatively simple realization that students are "not alone"—as many participants in this

study said they came to believe—could potentially have tremendous benefits to medical student well-being.

Declarations

Ethics Approval All study procedures, including the process of obtaining informed consent, were approved by the Institutional Review Board (522-17-Ex).

Conflict of Interest The authors declare that they have no conflict of interest.

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