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Anne Kennard

Tieraona Low Dog

Jennifer Clinkenbeard

Deirdre Pachman

David Iozzi

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Contemplative medicine: A practical approach to "Well-Being 2.0" in medicine

Anne Kennard [a], Tieraona Low Dog [b], Jennifer Clinkenbeard [c,*], Deirdre Pachman [d], David Iozzi [e]

[a] Marian Regional Medical Center, OB/GYN Department, United States
[b] Contemplative Medicine Fellowship, New York Zen Center for Contemplative Medicine, United States
[c] California State University Monterey Bay, Department of Mathematics and Statistics, United States
[d] Mayo Clinic, Palliative Medicine Department, United States
[e] New York Zen Center for Contemplative Care, United States

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ABSTRACT

Objective: To examine the relationship between Contemplative Medicine training and clinician burnout.
Methods: Clinicians underwent a 12 month training program in Contemplative Medicine, which addresses several of the "Well-being 2.0" framework elements. An uncontrolled pre and post test study design was used with the validated Maslach Burnout Inventory (MBI) as the study tool to evaluate efficacy of the program.
Results: Participants demonstrated improvement in burnout levels after the intervention. There were significant differences at the 0.05 significance level or better on all three scales of the MBI instrument when comparing baseline to follow-up responses, including emotional exhaustion, depersonalization, and sense of personal accomplishment. Particular improvement was noted in the "personal accomplishment" domain, with $p < 0.01$ when comparing baseline and follow-up responses.
Conclusion: The results of this study suggest that Contemplative Medicine training is a viable approach for improving clinician burnout and concretely implementing the "Well-being 2.0" framework.

Introduction and background

In 2022, United States Surgeon General Dr. Vivek Murthy issued a new Surgeon General's Advisory highlighting the urgent need to address health worker burnout, noting that it had reached "crisis levels" even before the COVID-19 pandemic.[1] Physician burnout was, predictably, at an all time high during the pandemic, with 62.8 % of physicians having at least one manifestation of burnout in 2021.[2,3] During the pandemic, depression increased and satisfaction with work-life integration decreased, and the proportion of physicians who indicated they would choose to become a physician again if they could revisit their career choice was 57.1 % in 2021 compared with 72.2 % in 2020.

Burnout is an occupational syndrome characterized by emotional exhaustion, depersonalization, and low personal accomplishment.[4] In addition to the personal impact of burnout on physicians, burnout is also linked to reduced quality of care, increased medical errors, reduced access to care, and increased healthcare costs due to turnover.[5] The Surgeon General's Advisory joins widespread calls to action to address physician burnout and improve the currently inadequate approach to physician well-being.[1]

One of the most recent calls, a *Mayo Clinic Proceedings* publication, discusses the evolution of the field and calls for the profession to transition to a "Well-Being 2.0" model to address the root causes of ongoing occupational distress experienced by physicians.[3] The framework calls for embracing a "physician as human" mindset and highlights the importance of cultivating a culture of vulnerability and growth. Self-compassion, supporting colleagues through shared experience, and improved work-life integration are all key elements of transitioning to a sustainable practice model.[6] While these interpersonal elements do not address the systematic sources of burnout, they may enhance personal well-being and influence the culture of medicine, thus impacting two of the three of the domains on the Stanford WellMD Model of Professional Fulfillment.[7]

A concrete approach for actualizing many aspects of Well-Being 2.0 within health systems is "Contemplative Medicine", the integration of contemplative practices into a physician's personal and professional life. These practices serve as a foundation for mitigating burnout, cultivating well-being, and actively developing the skills needed to sustainably

* Corresponding author.
E-mail address: jclinkenbeard@csumb.edu (J. Clinkenbeard).

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practice compassionate medicine. Contemplative practices may include mindfulness, meditation, generous listening, narrative medicine, commensality, and development of self-compassion, although this is not an exhaustive list. Many of these practices are already utilized in academic and healthcare settings, and have an increasing body of data to support their usage.

The program of the present study is the Contemplative Medicine Fellowship, a twelve month training in Contemplative Medicine for physicians and advanced practice providers, developed by the New York Zen Center for Contemplative Care. The training utilizes a relationship-centered, cohort-based learning model, to experience a variety of contemplative practices. Through reflection, experiential exercises, and expert instruction, Fellows are guided in a practical, hands-on manner towards "Well-Being 2.0" being a reality. Table 1 below maps some of the components of the Contemplative Medicine Fellowship training and how they directly address the professional characteristics and mindset proposed for physician Well-Being 2.0 by Shanfelt et al.[3]

Training is delivered by well-known contemplative educators and interdisciplinary faculty through monthly Zoom-based training days and sessions, an online course of study and practice consisting of monthly video lectures, contemplative practice assignments, readings, reflective writing, and mentorship, and two contemplative retreats. The total time commitment over the 12 months is approximately 500 h, and includes a final Capstone project.

Method

Demographics of the sample

Of the 34 participants in the Contemplative Medicine Fellowship, there were 32 participants who completed both the baseline and follow-up assessments. At the time of the baseline assessment, the mean age of the participants was 50.1 years of age (SD = 10.1). Participants self-identified their gender, ethnicity, profession, and length of time working in their profession. Twenty-one of the participants identified as female and eight as male. There were 28 physicians (DO and/or MD), three advanced practice registered nurses, and one physician assistant. Participants described working in a wide range of specialties. Participants' open-ended responses for race or ethnicity were reported using the categories described by the Integrated Postsecondary Education Data System. Table 2 below includes participants' characteristics at baseline.

All participants in the 2021–2022 Contemplative Medicine Fellowship were invited to complete assessments exploring their experiences with workload and burnout in a pre and post model. Pre-program assessments were administered and available for completion in the two weeks leading up to the beginning of the program in July 2021. Post-program assessments were administered and available for completion beginning July 2022. All participants in the Contemplative Medicine Fellowship during the 2021–2022 cohort who completed both the pre and post test were included in the following analyses ($n = 32$). There were two participants who completed the pre test, but not the post test, who were excluded from these analyses.

We used an uncontrolled pre and post test study design. Maslach Burnout Inventory (MBI), Fourth Edition,[4] a validated tool that is widely used in research centering on burnout in healthcare settings. Respondents were also surveyed on open response, qualitative questions that were authored by the implementation team.

Quantitative analysis was completed using IBM SPSS statistical software, version 26. Missing data were handled by pairwise deletion. Descriptive statistics were computed for each measure at baseline and follow-up; the change from baseline was also computed. The paired *t*-test was used to analyze the change from baseline and follow-up. The open ended questionnaire items were analyzed using an open coding scheme to identify themes. Data analyses were conducted by J.C. who was not involved in the intervention. Participants signed a consent form prior to participation. Identifiable data were kept confidential and only accessible to the researchers. All responses were analyzed and reported in aggregate form, ensuring that participants' identities could not be determined from the reported results.

Table 1
Well-Being 2.0 and Contemplative Medicine components.

Well-Being 2.0	Contemplative medicine
Human Qualities	Explore the pre-existing mindset of self-criticism, perfectionism, and unworthiness.
Vulnerability & growth mindset	Provide a safe and supportive environment to explore vulnerable experiences and develop a mindset of openness, curiosity, and acceptance.
Work-life Integration	Explore factors that lead to separation within one's life and work to make changes to foster work-life integration.
Self-Compassion	Explore the difference between empathy and compassion. Focus on the need to work on personal and interpersonal well-being in order to be able to fully care for others.
Community	Build a close community of practitioners to support each other in the practice of (contemplative) medicine through the fellowship and beyond.
Meaning and Purpose	Explore the root of our call to service and ways to reconnect daily despite identified challenges.

Table 2
Participant characteristics at baseline.

Age (years)	
Mean	50.1
SD	10.1
Number of respondents	32
Gender	
Female	24
Male	8
Ethnicity or race	
Hispanic or Latino	4
American Indian or Alaskan Native	0
Asian	5
Black or African American	1
Native Hawaiian or Other Pacific Islander	0
White	21
Two or More	1
Length of time working in profession	
2 years or less	0
3–5 years	3
6–10 years	8
11–15 years	6
16–20 years	5
21+ years	10
Profession	
Physician (MD or DO)	28
Advanced Practice Registered Nurse	3
Physician Assistant	1
Specialities of physicians	
Primary Care	9
Obstetrics and Gynecology	3
Pediatrics	2
Oncology	2
Surgical medical specialist	2
Non-surgical medical specialist	4
Other	6

Results

There were significant differences at the 0.05 level or higher on all three scales of the MBI instrument when comparing baseline to follow-up responses. Emotional exhaustion scores decreased from a baseline mean score of 29.47 by 6.5 points ($t = -2.672$, $p = 0.012$; 95 % confidence interval −11.461 to −1.539). Depersonalization scores decreased from a baseline mean score of 8.56 by 2.187 points ($t = -2.115$, $p = 0.043$; 95 % confidence interval −4.297 to −0.078). Personal accomplishment scores increased from a baseline mean score of 38.38 by 2.719 points ($t = 3.105$, $p = 0.004$; 95 % confidence interval 0.933 to 4.504).

Table 3
Descriptive statistics for baseline and follow-up responses of aggregate scale items on MBI.

		Mean	Std. deviation
Emotional exhaustion (0–54) $N = 32$	Pre	29.47	11.101
	Post	22.97	12.291
Depersonalization (0–30) $N = 32$	Pre	8.56	5.940
	Post	6.38	5.558
Personal accomplishment (0–48) $N = 32$	Pre	38.38	5.296
	Post	41.09	5.245

Tables 3 and 4 below give descriptive statistics and *t*-test results, respectively. Fig. 1 shows a comparison of mean responses for baseline (blue) and follow-up (orange) of each scale.

Participants' pre and post test responses were also compared with a large normative data set to determine if there were differences on burnout measures for the fellowship participants as compared with their colleagues at baseline. The MindGarden normative data set includes MBI scores from a population of 6326 medical personnel. A Welch's *t*-test was used to determine if there were significant differences between the MindGarden normative group and the participants' pre-program survey data on each of these three measures. Note that scores for MBI are reported in this data set using an average for each domain, as compared to the total score by domain reported previously (Range: 0 to 6). As in the previous section, on the Personal Accomplishment scale, lower scores indicate burnout; on the Emotional Exhaustion and Depersonalization scales, higher scores indicate burnout. There was a significant difference on the measure of emotional exhaustion ($t = 3.075$, $p < 0.001$) for the participants' responses at baseline as compared to their colleagues (Table 5).

In the open-ended survey items, participants reported positive results, noting a sense of community, connection, and support as parts of their fellowship training that were most useful. Participants also noted the relationship between compassion and suffering, and the development of compassionate presence as a therapeutic tool in their medical practices. Also noted was a sense of developed resiliency and joy, despite difficult work and circumstances.

Discussion and conclusion

The results of this program indicate that training in Contemplative Medicine is feasible prospect for enabling physicians to move towards "Well-Being 2.0" and away from burnout in medicine. This has wide impact potential when considering physician well-being, fewer medical errors, higher patient satisfaction, and improved career longevity.

Limitations of the study include a small sample size, with an $n = 32$. Also considered was the fact that the sample population already demonstrated interest in contemplative-type practices, with personal insight into the potential impact of these practices on well-being. However, while limited in sample size, the participants studied did begin the intervention with high burnout as compared with matched controls via the MindGarden Maslach Burnout Inventory data. It should be noted that the MindGarden data set was collected pre-pandemic, while the pre-program and post-program surveys were in 2021 and 2022, respectively. Notably emotional exhaustion scores among participants decreased to be at the same level as the normative group after participating in the fellowship.

A practical question is whether these outcomes are applicable if a participant were to do a training program of fewer hours and/or length of time. The authors recognize that a voluntary 12-month program is not going to be widely feasible or of interest for most physicians. Follow-up programming and data collection would be necessary to ascertain whether a more abbreviated program could attain similar outcomes. An abbreviated program might be particularly salient during medical education, as Contemplative Medicine is in alignment with several of the ACGME objectives, and medical training is known to be a particular time of increased burnout and risk of suicide. In particular, offering contemplative training on coping with medical mistakes and difficult outcomes, communication and listening skills, and personal reflection could be a powerful and high-value intervention during residency. Another future area of study could track participants' burnout inventory scores over time, to show longitudinal outcomes. We plan to continue to gather data with subsequent cohorts of the program to build a larger sample size to assess impact of the program. Well-being in medicine is a complex and urgent problem, and Contemplative Medicine offers concrete tools to effect change.

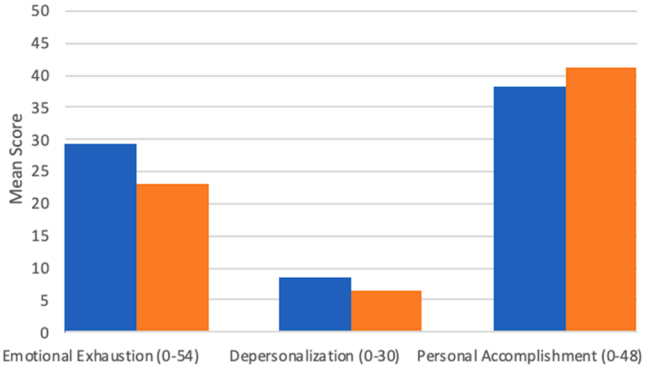

Fig. 1. Mean baseline and follow-up responses of aggregate scale items on MBI.

Table 5
Comparison of participants' pre and post test mean responses to a normative group.

	MindGarden dataset	Pre-program survey	Post-program survey
Emotional exhaustion	2.6	3.3	2.6
Depersonalization	1.5	1.7	1.3
Personal accomplishment	4.9	4.8	5.2

Table 4
Paired *t*-test comparison of baseline and follow-up responses on MBI aggregate scale items.

	Mean diff.	Std. dev.	Std. error mean	95 % confidence interval		*t*	*P*
				Lower	Upper		
Emotional exhaustion	−6.500	13.761	2.433	−11.461	−1.539	−2.672	0.012*
Depersonalization	−2.187	5.850	1.034	−4.297	−0.078	−2.115	0.043*
Personal accomplishment	2.719	4.953	0.876	0.933	4.504	3.105	0.004**

* Significant, $p < 0.05$.
** Significant, $p < 0.01$.

Abbreviations

MBI: Maslach Burnout Inventory.
ACGME: Accreditation Council for Graduate Medicine Education.

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