**Original Investigation**

**Intervention to Promote Physician Well-being, Job Satisfaction, and Professionalism**

A Randomized Clinical Trial

Colin P. West, MD, PhD; Liselotte N. Dyrbye, MD, MHPA; Jeff T. Rabatin, MD, MSc; Tim G. Call, MD; John H. Davidson, MD; Adamarie Multari, MD; Susan A. Romanski, MD; Joan M. Henrichsen Hellyer, RN, PhD; Jeff A. Sloan, PhD; Tait D. Shanafelt, MD

**IMPORTANCE** Despite the documented prevalence and clinical ramifications of physician distress, few rigorous studies have tested interventions to address the problem.

**OBJECTIVE** To test the hypothesis that an intervention involving a facilitated physician small-group curriculum would result in improvement in well-being.

**DESIGN, SETTING, AND PARTICIPANTS** Randomized clinical trial of 74 practicing physicians in the Department of Medicine at the Mayo Clinic in Rochester, Minnesota, conducted between September 2010 and June 2012. Additional data were collected on 350 nontrial participants responding to annual surveys timed to coincide with the trial surveys.

**INTERVENTIONS** The intervention involved 19 biweekly facilitated physician discussion groups incorporating elements of mindfulness, reflection, shared experience, and small-group learning for 9 months. Protected time (1 hour of paid time every other week) for participants was provided by the institution.

**MAIN OUTCOMES AND MEASURES** Meaning in work, empowerment and engagement in work, burnout, symptoms of depression, quality of life, and job satisfaction assessed using validated metrics.

**RESULTS** Empowerment and engagement at work increased by 5.3 points in the intervention arm vs a 0.5-point decline in the control arm by 3 months after the study ($P = .04$), an improvement sustained at 12 months (+5.5 vs +1.3 points; $P = .03$). Rates of high depersonalization at 3 months had decreased by 15.5% in the intervention arm vs a 0.8% increase in the control arm ($P = .004$). This difference was also sustained at 12 months (9.6% vs 1.5% decrease; $P = .02$). No statistically significant differences in stress, symptoms of depression, overall quality of life, or job satisfaction were seen. In additional comparisons including the nontrial physician cohort, the proportion of participants strongly agreeing that their work was meaningful increased 6.3% in the study intervention arm but decreased 6.3% in the study control arm and 13.4% in the nonstudy cohort ($P = .04$). Rates of depersonalization, emotional exhaustion, and overall burnout decreased substantially in the trial intervention arm, decreased slightly in the trial control arm, and increased in the nontrial cohort ($P = .03$, .007, and .002 for each outcome, respectively).

**CONCLUSIONS AND RELEVANCE** An intervention for physicians based on a facilitated small-group curriculum improved meaning and engagement in work and reduced depersonalization, with sustained results at 12 months after the study.

**TRIAL REGISTRATION** clinicaltrials.gov Identifier: NCT01159977


Published online February 10, 2014.
D

istress among physicians is a significant problem in modern medicine. Burnout affects nearly half of medical
students, residents, and practicing physicians in the United States. In addition, symptoms of depression are common
among physicians, who report high rates of dissatisfaction with quality of life and work-life balance. These issues are
important because they have potential for serious consequences on patient care, professionalism, physicians’ own care
and safety, and the viability of the health care system.

Despite the prevalence and ramifications of physician distress, few studies have tested interventions to address the
problem. Most studies have evaluated individual-focused strategies (eg, personal stress reduction and resilience training)
conducted on participants’ personal time and have provided limited information to indicate efficacy. Other studies have
suggested that fostering self-awareness can help physicians identify what they value and connect with what is most mean-
ingful in their work. Such mindfulness-oriented training is intended to promote patient-oriented care and physician
well-being through attention, awareness, intention, and self-reflection. Additional approaches include Balint groups,
in which physician groups explore the physician-patient relationship in discussions prompted by a specific pa-
tient interaction, and informal Doctoring to Heal physician discussion groups, which may foster greater personal
awareness and increase physician satisfaction. Outcome measures from these approaches are scarce, and application of vali-
dated instruments in such studies has been limited. In addition, studies of these approaches have almost exclusively applied
single-arm, nonrandomized designs.

Given the effect of physician distress on quality of care and turnover, physicians and health care employers have a shared
responsibility to promote physician well-being. We report the results of a randomized clinical trial testing an intervention with
protected time (1 hour of paid time every other week, equal to 0.9% full-time equivalent) provided by the institution to pro-
tected time (1 hour of paid time every other week, equal to 0.9% full-time equivalent) provided by the institution to promote
well-being and reduce distress in physicians. Building on previous literature, this intervention involved facilitated
physician discussion groups organized around a curriculum incorporating elements of mindfulness, reflection, shared
experience, and small-group learning intended to promote collegiality and community at work among participants.
We hypothe-
sized that this intervention would result in improved meaning in work and positively affect well-being domains most closely
tied to meaning, including burnout.

Methods

Study Design, Setting, and Participants

This was a single-center, randomized clinical trial with a planned enrollment of 90 practicing physicians in the Department
of Medicine at the Mayo Clinic in Rochester, Minnesota. The study was conducted between September 2010 and June 2012.
Participants were recruited through electronic departmental communications, mailings, and announcements at departmental
and division meetings. All volunteers provided written informed consent for participation in the trial. In addition, data
on the cohort of nontrial participants who provided responses to departmental surveys conducted annually and coinciding
with the trial baseline surveys were evaluated. This study was approved by the Mayo Clinic Institutional Review Board.

Randomization, Allocation Concealment, and Follow-up

Participants were randomized in a concealed fashion into 2 groups via a computer-generated algorithm. Randomization
was stratified by sex and specialty (general internal medicine or other internal medicine specialty) using permuted blocks.
Participants were evaluated at baseline, every 3 months through the 9-month study intervention, and at 3 and 12
months following the study.

Study Arms

Volunteers in both arms of the trial received 1 hour of protected time every other week to allow their participation during
the workday in place of clinical activities. Those in the control arm could schedule and use this hour of protected time in
any manner they believed was most useful but did not participate in the formal curriculum.

Participants randomized to the intervention arm engaged in a facilitated small-group curriculum administered at
1-hour meetings occurring once every 2 weeks for 9 months, for a total of 19 sessions. The 37 intervention arm participants
were divided into 4 small groups (8-10 physicians each) with similar compositions by sex and specialty. Topics addressed
during these sessions were organized into modules entitled “self,” “patient,” and “balance” and included meaning in work,
personal and professional balance, medical mistakes, community, caring for patients, and other topics relevant to
the work experiences of practicing physicians (Appendix 1 in the Supplement). Each session followed the same general struc-
ture: (1) check-in and welcome, (2) preparing the environment (eg, journaling and reflective exercise), (3) facilitated
group discussion, (4) learned skills and solutions, and (5) check-in and summary (Appendix 2 in the Supplement).

The study facilitators were practicing internal medicine physicians with specific expertise in communication and teaching
courses involving small-group facilitation. These individuals, who completed an additional 4-hour training session spe-
cific to the study curriculum before commencement of the small-group sessions, also participated in 1-hour, biweekly facili-
tator meetings to debrief and prepare for the next session.

Study Outcomes

Multiple validated instruments were used to measure domains of meaning in work, well-being, and distress in the ran-
donized and nontrial groups. Surveys were administered to trial participants electronically by the Mayo Clinic Survey
Research Center at baseline and every 3 months throughout the study, as well as 3 and 12 months after the conclusion of the
intervention. The baseline and 3-month poststudy surveys were timed to coincide with department-wide electronic sur-
veys of physician well-being also administered by the Mayo Clinic Survey Research Center to allow comparison of study
participants with other eligible physicians electing not to participate in the trial.
In the randomized arms of the study, we applied the Physician Job Satisfaction Scale\(^2\) (an average of 12 items on a 1-5 scale ranging from strongly disagree to strongly agree; range, 1-5) to measure satisfaction at work and the Empowerment at Work Scale\(^2\) (a total of 12 items on a 1-7 scale ranging from very strongly disagree to very strongly agree; range, 12-84) to measure empowerment, engagement, and meaning at work. Quality of life (QOL) and fatigue were measured by single-item linear analog scale assessment questions with a response range from 0 (as bad as it can be) to 10 (as good as it can be).\(^2\) Poor QOL was defined by a score of 5 or less since this threshold correlates with poor outcomes in clinical studies.\(^2\) In addition, we used the Medical Outcomes Study Short-Form Health Survey, which has 8 items with 5- and 6-point Likert-type scales. This instrument generates norm-based scores, calibrated to a mean score of 50, as it can be.\(^1\) This instrument was used to measure depersonalization, emotional exhaustion, and a sense of low personal accomplishment that is associated with decreased work performance, was measured with the Maslach Burnout Inventory, using established thresholds to define high levels of burnout in each domain.\(^2\) Stress was measured using the Perceived Stress Scale (a total of 10 items scored on a 0-4 scale ranging from never to very often; range, 0-40).\(^2\) Depression screening used the 2-question approach described by Spitzer et al\(^2\) and validated by WHOoley et al.\(^2\) Empathy was measured using the Jefferson Scale of Physician Empathy (a total of 20 items on a 1-7 scale ranging from strongly disagree to strongly agree; range, 20-140).\(^2\) Each of these metrics has been validated across a wide range of medical conditions and populations, including physicians.

In the nontrial cohort, an abbreviated survey was used. This survey included a single item measuring meaning at work drawn from the Empowerment at Work Scale,\(^2\) single-item measures of depersonalization and emotional exhaustion,\(^2\)\(^3\) and the single-item linear analog scale assessment QOL item.\(^2\)\(^4\)

Statistical Analysis

Standard univariate statistics were used to characterize the sample. The changes in each well-being metric from study baseline to study end, as well as at 3 and 12 months following the study, were analyzed according to the intent-to-treat principle using generalized estimating equations to account for the repeated-measures design. Because of baseline differences across groups for several variables, all analyses were adjusted for levels of distress at study onset. All tests were 2-sided (\(\alpha = 0.05\)). Statistical analyses were performed using SAS, version 9.2 (SAS Institute, Inc).

### Results

#### Sample Characteristics and Baseline Measures

Of 565 practicing physicians in the Mayo Clinic Department of Medicine, 74 consenting volunteers were randomized equally to the 2 arms of the intervention study (Figure 1). As described, participants were randomized in blocks by sex and medical subspecialization. Baseline characteristics of the 2 trial groups were generally similar, with no statistically significant differences observed, although the intervention arm had slightly higher rates of high emotional exhaustion and overall burnout. The 350 members of the nontrial cohort included fewer women and general internists than did the trial groups but had rates of baseline distress similar to those of the trial participants (Table 1).

![Figure 1. Study Flow](https://example.com/figure1.png)

Consolidated Standards of Reporting Trials diagram for participant flow through the trial.

Of the 37 participants in each arm of the study, 34 (91.9%) provided survey responses. With this sample size, power was 80% to detect a moderate Cohen’s effect size of 0.15. Of the 491 nonstudy participants, 350 (71.3%) provided survey responses. With this sample size, power was 80% to detect a small Cohen’s effect size of 0.02.

#### Randomized Arms

The 35 participants analyzed in the intervention arm attended a mean of 11.7 of 19 facilitated small-group sessions. Outcomes comparing the randomized arms of the study are shown in Table 2. At the end of the 9-month intervention period, empowerment and engagement at work rose by 2.6 points in the intervention arm vs 0.8 points in the control arm (\(P = .04\)). Three months after the study, empowerment and engagement at work had increased by 5.3 points in the intervention arm vs a 0.5-point decline in the control arm (\(P = .04\)). A difference sustained at 12 months (+5.5 vs +1.3 points; \(P = .03\)). Differences in rates of emotional exhaustion and overall burnout were small, but the rate of high depersonalization 3 months following the study had decreased by 15.5% in the intervention arm vs a 0.8% increase in the control arm (\(P = .004\)). This difference was also sustained at 12 months (9.6% vs 1.5% decrease; \(P = .02\)).

No statistically significant differences in stress, symptoms of depression, overall QOL, or job satisfaction were seen. Differences in mental and physical well-being, fatigue, and empathy were also small and not statistically significant (data not shown).
Comparisons With the Nontrial Cohort

Comparison of outcomes in the eligible physicians who chose not to participate (nontrial cohort) with those in the randomized arms of the study is shown in Figure 2. The proportion of participants strongly agreeing that their work was meaningful increased in the trial intervention arm but decreased in the trial control arm and the nonstudy cohort \( (P = .04) \). Rates of burnout dropped substantially in the trial intervention arm, declined slightly in the trial control arm and increased in the nonstudy cohort \( (P = .03, .007, \) and .002 for depersonalization, emotional exhaustion, and overall burnout, respectively). Rates of poor QOL improved most in the trial intervention arm \( (15.2\% \text{ vs} 0.6\% \text{ decrease in the trial control arm and 7.3\% increase in the nontrial cohort}) \), but these differences were not statistically significant \( (P = .57) \).

### Table 1. Baseline Demographic Characteristics of Randomized Arms of the Study and Cohort of Nonstudy Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Metric (Scale)</th>
<th>Intervention Arm ( (n = 37) )</th>
<th>Control Arm ( (n = 37) )</th>
<th>Nonstudy Cohort ( (n = 350) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex, No. (%)</td>
<td>Women</td>
<td>12 (32.4)</td>
<td>13 (35.1)</td>
<td>75 (21.4)</td>
</tr>
<tr>
<td>Specialty, No. (%)</td>
<td>General medicine</td>
<td>16 (43.2)</td>
<td>15 (40.5)</td>
<td>101 (28.9)</td>
</tr>
<tr>
<td>Engagement and meaning at work, mean (SD)</td>
<td>EWS (12-84)</td>
<td>54.2 (9.5)</td>
<td>58.2 (11.1)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Single item (1-7)</td>
<td>6.1 (1.0)</td>
<td>6.4 (0.8)</td>
<td>6.2 (1.0)</td>
</tr>
<tr>
<td>Burnout, No. (%)</td>
<td>Full MBI high depersonalization</td>
<td>9 (24.3)</td>
<td>9 (25.7)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>High single item</td>
<td>6 (16.2)</td>
<td>6 (17.1)</td>
<td>35 (10.3)</td>
</tr>
<tr>
<td></td>
<td>Full MBI high emotional exhaustion</td>
<td>17 (45.9)</td>
<td>12 (34.3)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>High single item</td>
<td>13 (35.1)</td>
<td>8 (22.9)</td>
<td>95 (27.4)</td>
</tr>
<tr>
<td></td>
<td>Full MBI overall burnout</td>
<td>20 (54.1)</td>
<td>15 (42.9)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Overall single-item burnout</td>
<td>15 (40.5)</td>
<td>11 (31.4)</td>
<td>98 (28.7)</td>
</tr>
<tr>
<td>Stress, mean (SD)</td>
<td>Perceived Stress Scale (0-40)</td>
<td>18.0 (5.6)</td>
<td>16.2 (6.2)</td>
<td>NA</td>
</tr>
<tr>
<td>Depression, No. (%)</td>
<td>Positive depression screen</td>
<td>11 (29.7)</td>
<td>11 (31.4)</td>
<td>NA</td>
</tr>
<tr>
<td>QOL, mean (SD)</td>
<td>Overall QOL (0-10)</td>
<td>6.7 (1.7)</td>
<td>6.7 (2.0)</td>
<td>6.7 (2.0)</td>
</tr>
<tr>
<td>Work-home conflicts, work/home/both, No. (%)</td>
<td>Work-home conflict in previous 3 wk</td>
<td>32 (88.9)</td>
<td>31 (88.6)</td>
<td>232 (66.3)</td>
</tr>
<tr>
<td></td>
<td>Resolution of work-home conflict</td>
<td>19 (51.4)</td>
<td>15 (42.9)</td>
<td>173 (49.4)</td>
</tr>
<tr>
<td></td>
<td>4 (10.8)</td>
<td>8 (22.9)</td>
<td>27 (7.7)</td>
<td>122 (34.9)</td>
</tr>
<tr>
<td></td>
<td>14 (37.8)</td>
<td>12 (34.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job satisfaction, mean (SD)</td>
<td>PJSS (1-5)</td>
<td>3.8 (0.7)</td>
<td>4.0 (0.7)</td>
<td>NA</td>
</tr>
</tbody>
</table>

### Table 2. Changes From Baseline for Randomized Arms of the Trial

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>During Intervention</th>
<th>Postintervention Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3 mo</td>
<td>6 mo</td>
</tr>
<tr>
<td>Engagement at work(^a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>3.6</td>
<td>3.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Control</td>
<td>0.3</td>
<td>1.8</td>
<td>0.8</td>
</tr>
<tr>
<td>High depersonalization, %(^b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>-7.2</td>
<td>-1.8</td>
<td>-15.5</td>
</tr>
<tr>
<td>Control</td>
<td>-0.7</td>
<td>-2.8</td>
<td>1.6</td>
</tr>
<tr>
<td>High emotional exhaustion, %(^b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>-11.6</td>
<td>-9.5</td>
<td>-19.4</td>
</tr>
<tr>
<td>Control</td>
<td>-3.7</td>
<td>-14.3</td>
<td>-4.0</td>
</tr>
<tr>
<td>Overall burnout, %(^b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>-9.6</td>
<td>-11.5</td>
<td>-6.5</td>
</tr>
<tr>
<td>Perceived Stress Scale(^b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>-2.2</td>
<td>-2.2</td>
<td>-3.1</td>
</tr>
<tr>
<td>Control</td>
<td>-0.9</td>
<td>-2.5</td>
<td>-1.8</td>
</tr>
<tr>
<td>Positive depression screen(^b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>-1.1</td>
<td>-11.5</td>
<td>-6.2</td>
</tr>
<tr>
<td>Control</td>
<td>1.9</td>
<td>5.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Overall QOL(^a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>0.4</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Control</td>
<td>0.6</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>PJSS(^a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Control</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Abbreviations: PJSS, Physician Job Satisfaction Scale; QOL, quality of life.

\(^a\) Increased score reflects improved outcome.

\(^b\) Decreased score reflects improved outcome.
Discussion

To our knowledge, this study is the first randomized clinical trial evaluating an initiative with employer-provided protected time designed to promote meaning in work and reduce distress among physicians. This trial evaluated whether a facilitated small-group curriculum was an effective way to use employer-provided protected time and compared participants in both active arms of the trial with eligible nonparticipants. Participants in the facilitated small-group intervention experienced significant improvements in meaning, empowerment, and engagement in work beyond that seen in the physicians receiving only protected time. These differences, which became most apparent toward the end of the study period, were sustained for 12 months after the end of the intervention period. In addition, rates of depersonalization decreased markedly in the intervention arm of the study compared with the control arm, a result that was also sustained for 12 months following the study. These findings suggest that although receiving unstructured protected time offered some benefits by itself, the advantages of the small-group curriculum were greater and persisted after the intervention concluded, particularly for meaning and the closely associated interpersonal aspects of burnout. Differences in other domains of burnout and distress were not found between the trial arms, although compared with the nontrial participants, the facilitated small-group intervention resulted in improvements more broadly, including across all domains of burnout.

The observed improvements in some but not all domains of well-being suggest that approaches to physician distress likely must be directed at specific targets. The intervention in this study was primarily designed to promote meaning at work through collegiality, community, shared experience, and reflection centered on discussions of topics related to the experience of being a physician, within the safety of a confidential small group. The topics covered in the curriculum included a focus on skills in reflection, self-awareness, and mindfulness, with this combination
of community building and skill acquisition expected to promote a sense of connectedness and meaning in one’s work. Addition-
tional interventions designed to more specifically address other
elements of distress may be necessary to affect those domains,
including those extending beyond the workplace, such as QOL
and symptoms of depression.

The results of this study illustrate the potential of institu-
tional commitments to physician well-being programs to offer
at least partial solutions to the current crisis of physician burn-
out and dissatisfaction. Given the shared responsibility of phy-
sicians and health care organizations to promote physician
well-being, maximal benefit is likely to require coupling insti-
tutional approaches (both institutionally supported individual
efforts and restructuring of the institutional environment) with
existing individual strategies to promote wellness such as mind-
fulness and resilience training. Such a comprehensive ap-
proach has the potential to replace a culture of distress among
physicians with a culture of thriving and flourishing.

This study is subject to a number of limitations. First, the
sample size in the randomized portion of the study was small.
Second, the trial participants reflect a self-selected group of
physician volunteers. Therefore, although comparisons be-
tween the trial and nontrial participants were adjusted for dif-
fferences in measured demographic factors and baseline lev-
els of distress, it is possible other important differences existed
between these groups. Third, all participants were internal
medicine physicians from a single academic medical center.

The baseline well-being and distress levels in this study were
generally similar to those reported in previous studies of phy-
sicians, but these results may not be fully generalizable to
other practices. For these reasons, the effectiveness of this
intervention should be replicated in additional samples of phy-
sicians in other practice settings. Finally, it is not known which
elements of this curriculum had the greatest effect on each
outcome or if the full curriculum is necessary to achieve the
benefits found in this trial, so future work should address
the influence of specific aspects of the curriculum on physi-
cian well-being. More broadly, additional research using rig-
orous comparative designs is needed to better understand
which interventions are most useful in improving well-being
across its many dimensions, as well as which physicians would
benefit the most from specific approaches.

Conclusions

This randomized clinical trial demonstrates that a facilitated
small-group curriculum for physicians with protected time pro-
vided by the institution can improve elements of physician well-
being, including meaning, empowerment, and engagement in
work, and reduce distress, including depersonalization. This in-
tervention is not a panacea for physician distress but represents
an important addition to the medical profession’s understand-
ing of and ability to meaningfully promote physician well-being.

ARTICLE INFORMATION

Accepted for Publication: December 10, 2013.


Author Affiliations: Division of General Internal Medicine, Department of Medicine, Mayo Clinic, Rochester, Minnesota (West, Davidson, Romanski); Division of Biomedical Statistics and Informatics, Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota (West, Sloan); Division of Primary Care Internal Medicine, Department of Medicine, Mayo Clinic, Rochester, Minnesota (Dyrbye); Division of Pulmonary and Critical Care Medicine, Department of Medicine, Mayo Clinic, Rochester, Minnesota (Rabatin); Division of Hematology, Department of Medicine, Mayo Clinic, Rochester, Minnesota (Call, Shanafelt); Division of Preventive, Occupational, and Aerospace Medicine, Department of Medicine, Mayo Clinic, Rochester, Minnesota (Multari); Program in Professionalism and Ethics, Mayo Clinic, Rochester, Minnesota (Hellyer).

Author Contributions: Dr West had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: West, Dyrbye, Rabatin, Call, Hellyer, Sloan, Shanafelt.

Acquisition of data: West, Call, Davidson, Multari, Romanski, Hellyer, Shanafelt.

Analysis and interpretation of data: West, Sloan, Shanafelt.

Drafting of the manuscript: West, Dyrbye, Sloan.

Critical revision of the manuscript for important intellectual content: All authors.

Statistical analysis: West, Sloan.

Administrative, technical, or material support: Dyrbye, Rabatin, Call, Davidson, Hellyer, Shanafelt.

Study supervision: West, Call, Sloan, Shanafelt.

Conflict of Interest Disclosures: None reported.

Funding/Support: This study was supported by the Mayo Clinic Program on Professionalism and Ethics and the Department of Medicine at Mayo Clinic Rochester.

Role of the Sponsors: The funding source had no role in the design and conduct of the study; collection, management, analysis, or interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

REFERENCES


2. West CP, Shanafelt TD, Kolars JC. Quality of life, burnout, educational debt, and medical knowledge among internal medicine residents. JAMA. 2011;306(9):952-960.


Intervention to Promote Physician Well-being

Related article page 527

Physician Well-being
Addressing Downstream Effects, but Looking Upstream
Lara Goitein, MD

In this issue of JAMA Internal Medicine, West et al\(^1\) report results of a randomized clinical trial of an intervention to improve physicians’ psychological well-being. The intervention—a series of small-group discussions—showed success in 2 indicators of distress. But the results also constitute a warning about the growing demoralization of physicians.

The participants were 74 internal medicine physicians at the Mayo Clinic. West et al\(^1\) studied whether facilitated discussions in small groups, related to physician well-being and work experience, could reduce burnout and influence other measures of psychological health. (Burnout, characterized by a loss of enthusiasm for work, cynicism, and feelings of low accomplishment, is reported to affect almost half of US physicians.\(^2\)) The physicians from both the intervention and control arms received 1 hour of paid time every 2 weeks, taken from clinical activities, to use for the discussions—or, in the control group, for any purpose they chose. The intervention lasted 9 months, with 1 year of follow-up.

Compared with the control group, the intervention group showed a substantial and sustained reduction in depersonalization (one of the subscales assessing burnout), which is manifested as a sense of alienation from patients, and better scores on the Empowerment at Work Scale, which measures a sense of control, participation, and meaning. No significant difference was observed in the other measures tested.

Why was the intervention successful, albeit narrowly? There is some evidence that fostering reflection and self-awareness can improve physicians’ sense of well-being.\(^3\) In addition, collegiality is associated with physicians’ professional satisfaction, and these small groups may have created an important sense of community.\(^4\) In any case, the small-group sessions appear to have been effective in reconnecting many physicians to their patients, and to the worth of their work.

It is interesting to consider the differences between the measures of well-being that did improve compared with the control arm, and the measures that did not. Depersonalization was ascertained by responses to statements such as, “I’ve become more callous toward people since I took this job;” and “I feel I treat some recipients as if they were impersonal objects.” The Empowerment at Work Scale consists of statements such as, “The work I do is meaningful to me.” Both measures could be construed as representing fairly downstream effects of the work environment. In contrast, measures such as emotional exhaustion (which did not differ between the study groups), assessed with statements such as “I feel I’m working too hard on my job,” may more directly represent