Utility of a Brief Screening Tool to Identify Physicians in Distress

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BACKGROUND: Despite a high prevalence of distress, few physicians seek help. Earlier identification of physicians in distress has been hampered by the lack of a brief screening instrument to assess the common forms of distress.

OBJECTIVE: To evaluate the ability of the seven-item Physician Well-Being Index (PWBI) to i) stratify physician well-being in several important dimensions (mental quality of life [QOL], fatigue, suicidal ideation); and ii) identify physicians whose degree of distress may negatively impact their practice (career satisfaction, intent to leave current position, medical errors).

DESIGN: Cross-sectional study.

PARTICIPANTS: National sample of 6,994 U.S. physicians.

MAIN MEASURES: PWBI, Mental QOL, fatigue, suicidal ideation, career satisfaction, and clinical practice measures.

KEY RESULTS: Physicians with low mental QOL, high fatigue, or recent (< 12 months) suicidal ideation were more likely to endorse each of the seven PWBI items and a greater number of total items (all $P < 0.001$). Assuming a prevalence of 19 %, the PWBI could reduce the post-test probability of a physician having low mental QOL to < 1 % or raise it to > 75 %. The likelihood ratio for low mental QOL among physicians with PWBI scores ≥ 4 was 3.85 in comparison to 0.33 for those with scores < 4. At a threshold score of ≥ 4 , the PWBI's specificity for identifying physicians with low mental QOL, high fatigue, or recent suicidal ideation were 85.8 %. PWBI score also stratified physicians' career satisfaction, reported intent to leave current practice, and self-reported medical errors.

CONCLUSIONS: The seven-item PWBI appears to be a useful screening index to identify physicians with distress in a variety of dimensions and whose degree of distress may negatively impact their practice.

KEY WORDS: physicians; quality of life; mental health; self-assessment tool; physician well-being index; PWBI.

J Gen Intern Med 28(3):421-7

DOI: 10.1007/s11606-012-2252-9

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INTRODUCTION

"These are the duties of a physician: First...to heal his mind and to give help to himself before giving it to anyone else."

Epitaph of an Athenian doctor, 2 AD

Medicine is a rewarding and challenging profession. Unfortunately, despite its virtues, studies document an alarmingly high prevalence of distress among physicians. Previous studies suggest that 10–20 % of physicians are depressed, nearly half have burnout, and many have poor quality of life (QOL), report dissatisfaction with work-life balance, and have high degrees of stress and fatigue.^{1–4}

Physicians' mental health can adversely affect competency, professionalism, and the quality of care physicians provide their patients.² Burnout and other types of distress are associated with alcohol abuse, suicidal ideation, malpractice suits, and attrition from medical practice.^{5–8} Unfortunately, a lack of awareness of how their distress compares to other physicians, reluctance to acknowledge personal struggles, concerns regarding potential implications on their license to practice, and a professional culture that discourages discussing "weaknesses" are barriers to seeking help for many physicians.

One way to begin to address these challenges is to provide a brief self-assessment tool that could be used by physicians at regular intervals to assess their current level of distress, provide a context regarding how an individual's level of distress compares to what is typical for physicians, and indicate when the level of distress puts a physician at higher risk for potentially serious personal and professional repercussions. Such a tool could also be used to screen groups of physicians, stratify an individual's level of distress, identify those who may benefit from individual support, and provide personalized feedback that may increase the likelihood resources are accessed. Early identification of at-risk physicians could also result in earlier intervention when distress is less severe, with the potential to reduce the risk of adverse personal and professional consequences. Ideally, such a self-assessment tool would screen for the multiple dimensions of distress

Received May 30, 2011

Revised September 19, 2012

Accepted October 3, 2012

Published online November 6, 2012

that commonly affect physicians. Unfortunately, the existing instruments to evaluate distress are long, typically measure only one domain of distress (e.g. fatigue, burnout), are cumbersome to analyze, do not identify those with high well-being, and are not clearly linked to practice-related risk (e.g. intent to reduce hours or move to a new practice).

Using a rigorous development and multi-step validation process, we recently designed a seven-item screening tool to evaluate fatigue, depression, burnout, anxiety/stress, and mental/physical QOL among medical students (the medical student well-being index [MSWBI]).^{9,10} After initial development in a sample of 2,230 students in 2008, the efficacy of this index was confirmed in a sample of 2,682 medical students in 2010. Importantly, the evidence suggests the instrument is useful not only for identifying medical students in distress, but also for identifying those whose degree of distress places them at risk for adverse consequences (e.g. suicidal ideation and/or serious thoughts of dropping out of medical school).

Since the domains of distress assessed by the MSWBI are equally relevant for practicing physicians, we created a modified version of this index for physicians (the Physician Well-Being Index [PWBI]). In the present study, we evaluate the utility of the PWBI in a national sample of physicians, and assess its ability to stratify physician well-being and identify physicians whose degree of distress may adversely impact their practice.

METHODS

Participants

As previously reported,⁴ we conducted a survey evaluating burnout and QOL among American physicians in Summer 2011. We used the American Medical Association Physician Masterfile, which contains a nearly complete record of all U.S. physicians, to obtain a sample of U.S. physicians. In order to obtain an adequate sample of physicians from all specialty areas, we oversampled physicians in fields other than primary care. Invitations to complete the survey were sent to 89,831 physicians, of whom 27,276 opened at least one invitation e-mail. This cohort of 27,276 physicians was considered to have received the invitation to participate in the study. Mayo Clinic Institutional Review Board approved the study.

Study Measures

Physician Well-Being Index. The development and performance of the MSWBI has been previously reported.^{9,10} Briefly, the index is intended to include the domains of burnout, depression, stress, fatigue, and mental

and physical QOL. Respondents are asked to answer seven yes/no items and receive a score from 0–7 (1 point for each item answered “yes”), based on responses. At a score of ≥ 4 , the index’s sensitivity and specificity for identifying medical students with a mental QOL score $\geq 1/2$ standard deviation (SD) below that of the age-matched and sex-matched population are 59.2 % and 87.7 %, respectively. Scores ≥ 4 also identify students more likely to have recent suicidal ideation and/or serious thoughts of dropping out of medical school, while scores of < 2 identify students with higher degrees of mental QOL.

We modified the MSWBI to create a version for physicians by replacing the term “medical school” with “work” and adding the time reference “during the past month” to all items. In addition to the standardized scoring (described above), we also evaluated alternative weighted scoring approaches informed by multivariate analysis, to see if this improved the performance of the instrument for detecting certain outcomes (e.g. whether increasing weighting of the depression item allowed the index to better stratify risk of suicidal ideation).

Other Study Measures. Physicians rated their mental QOL over the past week on a standardized linear analog scale (0=“As bad as it can be”; 10=“As good as it can be”). This scale has established validity in a variety of medical conditions and populations.^{11,12} Using the approach described by West et al.¹³, physicians rated their level of fatigue on a similar standardized linear analog scale. Our item assessing suicidal ideation within the last 12 months (i.e., “During the past 12 months, have you had thoughts of taking your own life?”) is similar to questions used in large U.S. epidemiologic studies,^{14,15} and has been used in previous samples of physicians.⁷ The personal accomplishment subscale (PA) of the Maslach Burnout Inventory was used to measure physicians’ sense of achievement and meaning in work.¹⁶ Similar to previous physician surveys,^{17–19} physicians indicating they would “probably” or “definitely yes” choose to become a physician again if they could revisit their career choice were considered to have greater career satisfaction. Additional items from previous physician surveys explored intent to leave current practice within the next 2 years,⁸ intent to reduce their clinical hours within 1 year,⁸ and self-perceived medical errors in the last 3 months.¹³ Data on intent to leave current practice or reduce hours were only analyzed from responses of physicians ≤ 65 years of age (as individuals ≥ 65 are of retirement age and intent to reduce hours or leave practice would be expected.)

Outcome Measures to Assess Performance of the Physician Well-Being Index

Since distress can manifest in a variety of ways (e.g., burnout, depression, low QOL, etc.), and as there is no single gold standard

definition for “severe distress,” we assessed the ability of the PWBI’s to:

1. Identify physicians with low mental QOL defined by a score $\geq 1/2$ SD below the sex-matched general population norm¹³ (a clinically meaningful effect size;²⁰ detailed information regarding the norm in the Supplemental Appendix).
2. Identify physicians who had high level of fatigue defined by a score $\geq 1/2$ SD below the sex-matched general population norm (lower scores indicate higher fatigue).⁴
3. Identify physicians who reported suicidal ideation within the last 12 months
4. Stratify physician’s reported level of meaning in work, career satisfaction, intent to leave current practice, and likelihood of reporting a recent major medical error.

Statistical Analysis

We used basic descriptive statistics and Fisher exact test or Wilcoxon/two-sample t test procedures, as appropriate. We used a 5 % type I error rate and a two-sided alternative. We calculated the sensitivity, specificity, and likelihood ratios (LRs) associated with PWBI scores and constructed receiver operating characteristic (ROC) curves for main outcomes of interest. We used multiple confirmatory multivariable methods to test the PWBI’s stability as a screening instrument. We performed three forward stepwise logistic regression models (with backwards stepwise regression as a confirmatory analysis) to identify which PWBI item(s) independently detects the physician with low overall QOL, high fatigue, or suicidal ideation. Then, we evaluated the fitness of our model using 500 randomly generated bootstrapping samples. Lastly, we used a hypothetical cohort to explore the practicality of using the PWBI at various cut points. We conducted all analysis using SAS version 9 (SAS Institute, Cary, North Carolina).

RESULTS

A detailed description of the survey, analysis of the demographics and rates of burnout, QOL, and symptoms of depression among physicians responding to the 2011 AMA survey have been previously reported.⁴ Of the 27,276 physicians who received an invitation to participate, 7,288 (26.3 % cooperation rate) completed surveys. Most responders were male (79.1 %), the median age was 55, 26.4 % worked in primary care, and the median number of years in practice was 22. The demographics of responders in comparison to all 814,022 U.S. physicians listed in the Physician Masterfile were generally similar, although

responders were slightly older and more years had passed since their medical school graduation.

Physician Well-Being Index Score and Mental Quality of Life

Physicians with low mental QOL were more likely to endorse each PWBI item (all $p < 0.001$, Table 1), as well as a greater total number of items (mean, 4.3 items [SD 1.5] vs. mean, 1.8 items [SD 1.87], $p < 0.0001$). Mental QOL decreased in a step-wise fashion as the number of PWBI items endorsed increased ($p < 0.001$), implying that the PWBI can stratify physicians with both high and low mental QOL). As the number of PWBI items endorsed increased, so did the odds of having low mental QOL.

Using exact PWBI scores, which provide a way to estimate an individual physician’s risk of distress after they complete the PWBI, the likelihood ratio (LR) of low mental QOL ranges from 0.04 (score of 0) to 13.07 (score of 7; Table 2). Assuming a 19 % prevalence of low mental QOL (i.e., the approximate prevalence in the overall 2011 AMA sample⁴ and in previous large studies of physicians¹⁷) as the pretest probability, the PWBI exact score can lower the post-test probability to < 1 % (score of 0) or raise it to > 75 % (scores of 7).

Fatigue and Suicidal Ideation

Physicians with either high levels of fatigue or recent suicidal ideation were more likely to endorse each PWBI item and a greater number of total items (all $p < 0.001$). As the number of PWBI items endorsed increased, so did the odds of high fatigue (OR 0.15–23.58) and suicidal ideation (OR 0.07–5.71). Assuming a prevalence of 30 % for high fatigue (i.e., the approximate prevalence in the overall sample and previous studies)¹³ as the pretest probability, the PWBI exact score can lower the post-test probability to 8.5 % (score of 0) or raise it to > 90 % (score of 7). Similarly, using a prevalence of 6.5 % for recent suicidal ideation (i.e., the approximate prevalence in the overall sample and previous large studies of physicians)⁷ as the pretest probability, the PWBI exact score can lower the post-test probability to < 1 % or raise it to > 27 %.

Threshold Scores

Unlike the use of exact scores to assess the risk of an individual, threshold scores (i.e., ≥ 1 , etc.) can estimate the risk of distress in a group of physicians scoring at or above a specific threshold. This approach may be most useful for establishing a cutoff score to identify a subset of physicians who may benefit from further evaluation or support. At a threshold score of ≥ 4 , the specificity of the PWBI for identifying physicians with low mental QOL was 81.0 % and the sensitivity was 73.3 %. The LR for having low mental

Table 1. Physician Well-Being Index (PWBI) Items Endorsed by 6,994 U.S. Physicians with and Without Low Mental Quality of Life (QOL), 2011*

Item	No. (%) endorsing item [†]		OR (95 % CI) [‡]
	Physician with low mental QOL (n=1,328)	Physician without low mental QOL (n=5,666)	
During the past month:			
1. Have you felt burned out from your work?	1,210 (91.1)	2,625 (46.3)	11.88 (9.76, 14.45)
2. Have you worried that your work is hardening you emotionally?	799 (60.2)	1,340 (23.6)	4.88 (4.30, 5.53)
3. Have you often been bothered by feeling down, depressed, or hopeless?	1,011 (76.1)	1,279 (22.6)	10.94 (9.50, 12.59)
4. Have you fallen asleep while stopped in traffic or driving?	190 (14.3)	424 (7.5)	2.06 (1.72, 2.48)
5. Have you felt that all things you had to do were piling up so high that you could not overcome them?	975 (73.4)	1,877 (33.1)	5.57 (4.88, 6.37)
6. Have you been bothered by emotional problems (such as feeling anxious, depressed, or irritable)?	1,120 (84.3)	1,868 (33.0)	10.95 (9.35, 12.82)
7. Has your physical health interfered with your ability to do your daily work at home and/or away from home?	388 (29.2)	586 (10.3)	3.58 (3.09, 4.14)
No. of items endorsed			
0	18 (1.4)	1,901 (33.6)	0.03 (0.02, 0.04)
1	64 (4.8)	1,067 (18.8)	0.22 (0.17, 0.28)
2	85 (6.4)	894 (15.8)	0.37 (0.29, 0.46)
3	187 (14.1)	726 (12.8)	1.12 (0.94, 1.33)
4	313 (23.6)	571 (10.1)	2.75 (2.36, 3.21)
5	369 (27.8)	376 (6.6)	5.41 (4.62, 6.35)
6	243 (18.3)	115 (2.0)	10.81 (8.58, 13.62)
7	49 (3.7)	16 (0.3)	13.52 (7.67, 23.85)

*For the purposes of this study, low mental QOL was defined as having a mental standardized linear analog QOL score $\geq 1/2$ standard deviation (SD) below that of the sex-matched general population. Among the 7,288 responding physicians, 6,944 (95.3 %) completed the section of the survey that included the PWBI

[†]All PWBI questions are answered "yes" or "no." One point is assigned for each "yes" response

[‡]Odds ratio represents risk of low mental QOL in the group of physicians that endorsed the item or the number of items relative to the group that did not (referent group)

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Table 2. Efficacy of the Physician Well-Being Index (PWBI) for Identifying Low Mental Quality of Life (QOL), Unfavorable Fatigue QOL, and Recent Suicidal Ideation Among U.S. Physicians*

PWBI exact score [†]	Low Mental QOL (n=1,328)		High Fatigue (n=2,098)		Suicidal Ideation (n=453)	
	LR [‡]	Prob. % [§]	LR	Prob. %	LR	Prob. %
0						
1	0.04	0.9	0.22	8.5	0.09	0.6
2	0.26	5.7	0.44	15.7	0.35	2.4
3	0.41	8.7	0.7	23.2	0.52	3.4
4	1.1	20.5	1.25	34.9	0.89	5.7
5	2.34	35.4	2.23	48.9	1.68	10.3
6	4.19	49.5	3.52	60.1	2.75	15.8
7	9.02	67.9	7.38	76.0	5.47	27.2
	13.07	75.4	22.95	90.8	5.52	27.4

*We defined 1) low mental QOL as having as mental standardized linear analog QOL score $\geq 1/2$ standard deviation (SD) below that of the sex-matched general population; 2) high fatigue as having a fatigue standardized linear analog score $\geq 1/2$ SD below that of the sex-matched general population (high score is favorable); and 3) recent suicidal ideation as endorsing experiencing suicidal ideation within the previous 12 months

[†]The PWBI exact score is the number of the seven PWBI items endorsed.

[‡]LR indicates the likelihood ratio associated with the exact score

[§]Post-test probability was calculated using an estimated prevalence of 19.0 % for low mental QOL, 30.3 % for high fatigue, and 6.4 % for suicidal ideation as the pretest probability

QOL among physicians with PWBI scores ≥ 4 was 3.85 in comparison to 0.33 for those with scores < 4 . The area under the ROC curve is 0.85 for low mental QOL, 0.78 for high fatigue, and 0.80 for suicidal ideation.

Next, we examined the prevalence of high fatigue or suicidal ideation among physicians who had index scores ≥ 4 but did not have low mental QOL. These physicians would be considered "false-positives" based on their mental QOL score alone. Among the 1,328 physicians with an index scores ≥ 4 who did not have low mental QOL, 635 (47.8 %) had high fatigue and 131 (9.9 %) reported recent suicidal ideation, suggesting that they were experiencing substantial distress despite their mental QOL scores. When only those physicians with PWBI scores ≥ 4 who did not have low mental QOL, high fatigue, or recent suicidal ideation were considered "false positives," the specificity increased to 85.8 %.

Physician Well-Being Index Scores and Practice-Related Risk

PWBI scores also stratified physicians' reported satisfaction with career choice, level of meaning in work, and reported intent to leave current practice or reduce clinical hours (Table 3,

Table 3. Efficacy of the Physician Well-Being Index (PWBI) for Stratifying Satisfaction with Career, Intent to Leave Current Job, Intent to Reduce Clinical Work Hours, and the Likelihood of Reporting a Recent Major Medical Error

PWBI exact score *	Satisfied with career choice (n=6,965)		Intend to leave current job † (n=5,838)		Intend to reduce clinical work hours ‡ (n=6,952)		Self-perceive recent medical error (n=586)	
	LR ‡	Prob. § %	LR	Prob. %	LR	Prob. %	LR	Prob. %
0								
1	3.29	88.6	0.39	11.4	0.65	19.2	0.25	2.4
2	1.69	80.0	0.68	18.3	0.83	23.3	0.55	5.1
3	1.24	74.5	0.86	22.0	0.92	25.2	0.78	7.1
4	0.74	63.7	1.19	28.1	1.22	30.9	1.11	9.9
5	0.52	55.3	1.29	29.7	1.21	30.8	1.67	14.1
6	0.33	44.0	2.01	39.7	1.6	37.0	2.29	18.5
7	0.37	46.9	2.55	45.5	1.7	38.3	3.04	23.1
	0.15	26.1	4.18	57.8	2.13	43.8	3.57	26.1

*The PWBI exact score is the number of the seven PWBI items endorsed

†Includes respondents less than 65 who indicated a moderate or higher likelihood of intent to leave their current practice or reduce their clinical work hours

‡LR indicates the likelihood ratio associated with the exact score

§ Post-test probability was calculated using an estimated prevalence of 70.3 % for satisfaction with career choice, 24.8 % for intent to leave current job, 26.8 % for intent to reduce clinical work hours, and 9 % for medical error as the pretest probability

$p < 0.001$). Physicians who reported a recent perceived major medical error were also more likely to endorse each of the individual PWBI items and a greater number of total items (for both, $p < 0.001$). Assuming an estimated prevalence of 9 % for recent major medical error (i.e., the prevalence in the sample and previous large studies of physicians²¹) as the pretest probability, the PWBI exact score can lower the post-test probability to 2.4 % (score of 0) or raise it to > 25 % (score of 7; Table 3).

Importance of Individual Items and Alternative Scoring Approaches

On logistic regression, 6/7 items were independently associated with physicians having low mental QOL (all except item 4); all items were independently associated with fatigue; and 5/7 items were independently associated with physicians' recent suicidal ideation (all except items 2 and 4). Alternative scoring strategies that used differential weighting of index items resulted in small improvements in the sensitivity and specificity for mental QOL (≤ 2 % improvements sensitivity or specificity). In the case of suicidal ideation, the weighted scoring system achieved a modest gain in sensitivity (increased from 72.2 % to 79.9 %), without affecting specificity.

Use of the Physician Well-Being Index to Screen a Hypothetical Cohort of Physicians

Lastly, we modeled the outcome of screening a hypothetical cohort of 100 physicians using the PWBI and a PWBI score ≥ 4

to identify physicians at risk. Assuming a prevalence of low mental QOL, fatigue, and recent suicidal ideation similar to that of the 2011 national sample of U.S. physicians, 29/100 (29 %) would have a score ≥ 4 . Of these 29 physicians, 20/29 (69 %) would have either low mental QOL, recent suicidal ideation, or high fatigue.

DISCUSSION

This is the first national study that provides validity data on a brief self-assessment/screening instrument to evaluate physician distress across multiple important dimensions (e.g., burnout, depression, low mental QOL, stress, fatigue). The prevalence of distress among physicians, its potentially serious professional and personal ramifications, and the reluctance of physicians to seek help of their own initiative suggests such an instrument could be useful to improve self-awareness and identify physicians who may benefit from additional support. In this cohort of 6,994 U.S. physicians, the PWBI stratified physicians' well-being and could identify both those with in distress (e.g. low mental QOL, high degrees of fatigue, recent suicidal ideation), as well as those who were thriving (high mental QOL, high degree of meaning in work, high degree of career satisfaction).

The PWBI has a number of favorable characteristics. The instrument is brief (takes < 1 min to complete), screens for multiple dimensions of distress commonly experienced by physicians, is easy to score, and identifies physicians whose degree of distress is associated with potentially relevant

practice related risks (e.g. low career satisfaction, intent to reduce hours; intent to move to a new practice; perceived medical errors). These characteristics improve the practicality of using the instrument in busy physicians (who are unlikely to complete long instruments), and suggest it may be a useful means for organizations to assess and promote physician health, as mandated by the Joint Commission on Accreditation of Health Care Organization mandate.²² This latter attribute may be particularly important to health care organizations struggling with patient access issues, due to physicians reducing clinical work hours or dealing with the high costs of recruitment due to physician turn-over.²³

The PWBI could be used by either individual physicians to self-calibrate or by health care organizations to screen for distress in a group of physicians, to help identify those whose degree of distress may impact their practice. At a threshold score of ≥ 4 , the PWBI's sensitivity for identifying physicians with low mental QOL is 73.3 % with a specificity of 81.0 %. The specificity improved to 85.8 % when those without low mental QOL scores, but who had high fatigue or recent suicidal ideation, are not considered false positives. While the highest possible sensitivity and specificity are preferable, these values are impressive for a brief seven-item instrument evaluating multiple dimensions of distress with a specificity similar to that of other commonly used instruments designed to screen for only a single dimension of distress.²⁴⁻³¹ The exact PWBI score (0-7) is even more useful at the individual level, where the post-test probability of an individual physician having low mental QOL can be reduced to < 1 % or raised to > 75 %.

In addition to its value to individual physicians for self-assessment, these characteristics suggest that implementation of a screening process using the PWBI at the organizational level could also improve resource allocation to those physicians in greatest need of support. Such an approach could result in earlier intervention when distress is less severe, which has the potential to reduce the risk of adverse professional consequences. For example, by identifying physicians whose level of distress places them at higher risk for making a medical error or perceiving they have done so (which by itself has the potential to exacerbate their distress), support could be provided that could reduce inappropriate self-blame. Screening approaches for groups of physicians would likely need to be pursued through an independent third party rather than directly by a physician employer, so that all results are confidential. The threshold to be used to identify physicians who may benefit from further evaluation or support depends on local factors, such as prevalence of distress and availability of referral resources (e.g., employee assistance programs). Based on our data, we believe a threshold score of 4 or greater would be a reasonable starting point for identifying physicians who may benefit from further evaluation or support, as this threshold has a specificity for 85.8 % for identifying physicians with low mental QOL, high fatigue, or recent

suicidal ideation. Electronic versions of the index (which have already been created for the MSWBI) could also allow immediate, personalized feedback of results to individual physicians, which could be paired with contextual data comparing to national samples of physicians and information about potentially serious personal and professional repercussions. This data could also be paired with links to available support resources, so that this information is provided to physicians at a time when they may be most receptive to accessing them.

The present study has several limitations. First, distress is a multidimensional construct and no gold standard exists for measuring it. We choose to examine three clinically relevant dimensions of distress (low mental QOL, high fatigue, and suicidal ideation) with potential for serious personal and professional consequences for physicians. Although the PWBI appears to be valuable for stratifying risk in these important dimensions, it may or may not stratify risk for other dimensions of distress. Nonetheless, the fact that the mean mental QOL incrementally decreased with each 1 point increase in PWBI score suggests that the PWBI is a powerful risk stratification tool. Second, the PWBI is a screening tool rather than a diagnostic instrument. In this regard, the instrument is designed to be used as a way to improve physicians' self-awareness, provide calibration relative to peers, and identify those who may benefit from further evaluation or support. Third, as this was a cross-sectional study, future studies are needed to determine the PWBI's predictive validity, as well as its ability to assess change over time. Despite these limitations, our methodological approach of evaluating the instrument in a national sample of physicians, simultaneously using validated metrics to measure QOL, fatigue, and meaning in work, and exploring links to relevant personal and professional outcomes, establishes the construct and criterion validity of the PWBI.

In summary, the results from this study suggest that the seven-item PWBI is a useful approach to screen groups of physicians, stratify an individuals' physicians' level of distress, identify those who may benefit from individual support, and provide personalized feedback that may increase the likelihood resources are accessed. Additional studies are needed to determine the best way to engage physicians in the screening process, provide individual feedback, and evaluate whether screening with the PWBI encourages physicians in distress to seek help.

Acknowledgements: Sources of Funding: Funding for this study was provided by the American Medical Association and the Mayo Clinic Department of Medicine Program on Physician Well-Being.

Role of Sponsor: The sponsors had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; or preparation, review, or approval of the manuscript.

Conflict of Interest: Dyrbye and Shanafelt developed the Medical Student Well-Being Index, and Mayo Clinic holds the copyright on this technology, which is referenced in the article. Mayo Clinic and Dr. Dyrbye and Dr. Shanafelt have a financial interest in the technology, which has been licensed to a commercial entity although no royalties have been received to date.

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