United European Gastroenterology Journal

WILEY | ueg journal

REVIEW ARTICLE OPEN ACCESS

Promoting Well-Being Among Gastroenterologists – A Call for Systemic Action

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Received: 19 June 2025 | **Revised:** 9 November 2025 | **Accepted:** 17 November 2025

Keywords: burnout | endoscopy | evidence-informed well-being interventions | gastroenterology | hepatology | individual-level interventions | organisational interventions | physician well-being | resilience | scoping review

ABSTRACT

United European Gastroenterology (UEG) has launched an initiative to promote physician well-being and prevent burnout. This current concept article is based on a survey of the National Societies Forum and National Societies Committee, a meta-analysis by Shiha et al., and a scoping review of evidence-based interventions. It identifies key systemic and individual drivers of burnout, outlines its consequences, and presents strategies for intervention—recognising that physician burnout threatens individual health, patient safety, and the sustainability of health care systems. Burnout in gastroenterology is driven by demanding workloads, complex procedures, and increasing administrative tasks. Addressing physician well-being must be viewed as a systemic challenge requiring coordinated efforts from individuals, hospitals, and scientific societies. National and

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specialist GI societies are pivotal. They must implement initiatives and advocate for systemic change through education, policy advocacy, and sustainable work design. Acknowledgement of burnout is a start. Progress requires commitment to well-being and continuing research.

1 | Introduction

The United European Gastroenterology (UEG) is committed to the promotion of well-being among its members. [1–3] A recent meta-analysis by the National Societies Committee (NSC) and the National Societies Forum (NSF) revealed that almost half of gastroenterologists and endoscopists experience burnout, with females being disproportionately affected. [4] This scoping review and current concept article analyses causes of burnout and highlights the core challenge gastroenterologists face (Figure 1a and b). The evidence base of this article consists of the following key information sources: (a) the recent meta-analysis by Shiha et al., (b) a UEG NSC/NSF survey (Figure 2), and (c) a scoping review of the literature of evidence-based interventions (Tables 1 and 2, Figure 3). Of particular importance, we propose actionable, evidence-based strategies to promote physician well-being.

1.1 | Definition of Well-Being and Burnout

Well-being was historically regarded as an individual responsibility, often associated with limited awareness. [5] In recent years, there has been a shift toward increased recognition and understanding. Of note, leading institutions have progressed from merely acknowledging the problem to implementing substantive and targeted interventions. [6].

The Stanford Model of Professional Fulfilment (SMPF) defines three components of physician well-being: A culture of wellness, efficiency of practice, and personal resilience contribute to professional fulfilment. [7].

Burnout is now widely recognised as a marker of poor well-being. The term 'burnout' was first introduced by Freudenberger in 1974 to describe emotional and physical exhaustion among volunteers in free clinics. [8] Maslach later expanded the concept, identifying emotional exhaustion, depersonalisation, and reduced personal accomplishment as its core dimensions – forming the basis of the Maslach Burnout Inventory. [9].

1.2 | Assessment of Burnout and Resilience

The Maslach Burnout Inventory (MBI), a 22-item instrument, is considered the gold standard for assessing burnout and its subscales: emotional exhaustion, depersonalisation, and personal accomplishment. [10].

The Copenhagen Burnout Inventory (CBI) is a 19-item questionnaire designed to measure burnout in three domains: personal, work-related, and client (= patient)-related. [11].

There is an inverse relationship between resilience and burnout: as resilience decreases, burnout increases. [12] For resilience, the Connor–Davidson Resilience Scale is one of the most widely used tools, demonstrating strong psychometric properties. [13] Physicians are among the most resilient professionals, with average scores of 6.49 out of 8, compared to 6.25 in the general population. [12].

1.3 | Global Prevalence of Burnout in Gastroenterology and Hepatology

Our group has recently published a meta-analysis providing a comprehensive quantitative summary of burnout in gastroenterology. This meta-analysis by Shiha et al. reported a burnout prevalence of 45% among gastroenterologists and endoscopists. [4] These findings are consistent with those of Ong et al., who identified a median burnout rate of 35.3% (range 18.3%–64.4%) [14], and with studies in hepatology, where burnout rates of 35% among early-career transplant specialists [15] and 40% among practising transplant hepatologists in the United States have been reported. [16].

A table summarising prevalence data on burnout among gastroenterologists, endoscopists, hepatologists, and trainees is provided in the supplementary materials, highlighting variation across countries, disciplines, and the assessment tools used (Supporting Information S1).

2 | Interprofessional Survey of the UEG National Societies Committee (NSC) and Forum (NSF) to Assess Burnout in Gastroenterology

In May 2023, prior to an in-person meeting and topic-related workshop, the National Societies Committee (NSC) conducted a formal survey among representatives of national gastrointestinal societies within the National Societies Forum (NSF), to assess perceptions of burnout across professional groups in gastroenterology.

A total of 69 representatives from 47 countries were contacted, and 32 representatives from 25 countries replied, resulting in a 46% (32/69) response rate and coverage of 53% of UEG member countries. Among the 32 respondents, 66% considered that a substantial proportion of gastroenterologists in their countries were affected by burnout. Trainees, fellows, and senior physicians were most frequently identified as high-risk groups, followed by nurses and basic scientists. Only 15% perceived the risk of burnout as evenly distributed across all professional roles. Their perception was that the most relevant contributors to burnout were high workload (84%), excessive administrative burden (66%), and lack of supportive structures (63%), followed up by other factors such as performance pressure (44%), job insecurity (41%), poor leadership (38%), and a perceived lack of professional fulfilment (34%) (Figure 2).

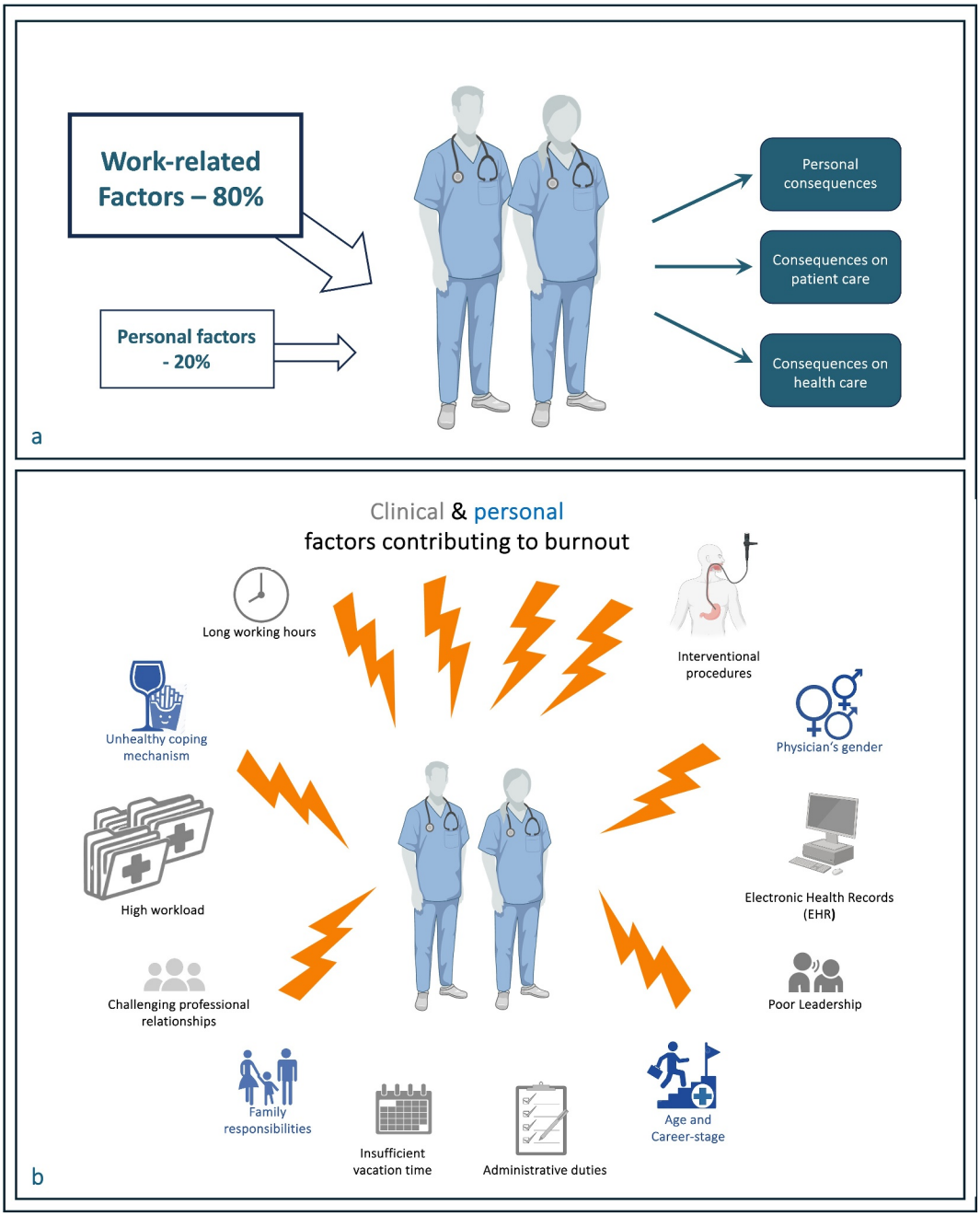

FIGURE 1 | Contributors to physician burnout and its consequences. Work- and system-related as well as personal factors contribute to burnout, such as high workloads, administrative duties and gender aspects (a and b). The consequence impact on individual physicians, patients and health care (a).

Despite the relevance of the issue, this survey was able to highlight that 94% of national societies had not conducted formal evaluations of burnout. Awareness of available support resources was limited: only 22% of respondents reported knowledge of such resources at local, regional, or national levels, while 50% were unaware and 28% were uncertain. Nonetheless, 88% expressed a strong interest in developing burnout prevention and management strategies in collaboration with UEG and its specialist and national member societies. Hence, the results of this NSF survey highlight the severity of burnout in the individual member countries and common themes contributing to burnout. Despite the relevant data for our community, this survey has some limitations, such as the small number of participants. The responding representatives (46%) and countries (53%) may also represent those national societies with more interest in the topic.

Thanks to the UEG infrastructure and the opportunity to integrate the perspectives from national member societies within NSF, the survey was followed by an in-person workshop (48 participants from 31 out of 49 countries in three groups of 16 individuals each, rotating through a 30 min workshop with two moderators, summarising and evaluating the key themes during which the NSF formulated a tentative solutions framework with multi-level interventions spanning individual, organisational,

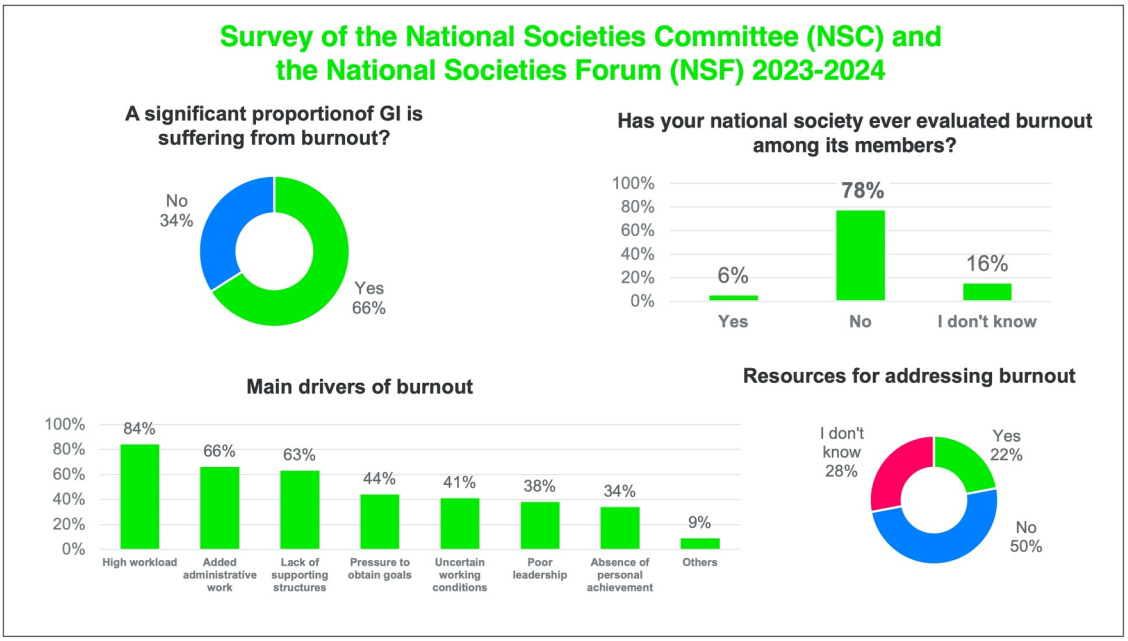

FIGURE 2 | Survey of NSC and NSF. The results of the survey of the UEG National Societies Committee (NSC) and National Societies Forum (NSF) reveal that a significant proportion of gastroenterologists suffer from burnout. Workplace factors contributing to burnout include high workload (84%), excessive administrative tasks (66%), and lack of supportive structures (63%). Fifty percent of respondents were aware of available resources to help gastroenterologists address burnout.

and systemic changes, with emphasis on cultural transformation, individual-level interventions, systemic or organisational interventions, and organisationally-initiated individual interventions.

3 | Consequences of Diminished Well-Being on the Individual Gastroenterologist, Patients, and the Health Care System

3.1 | Individual Gastroenterologist

Burnout not only affects professional performance but also has profound consequences on physical and mental health.

Moreover, burnout is a recognised contributor to depression, anxiety, and substance use disorders. It is also linked to higher risks of accidents, sickness absence, cardiovascular disease, suicide, and all-cause mortality. [17–22].

3.2 | Patients

Burnout among healthcare workers is closely linked to reduced organisational performance and suboptimal patient care. Physicians experiencing burnout are approximately twice as likely to be involved in patient safety incidents or to receive lower patient satisfaction ratings, and more likely to exhibit decreased levels of professionalism. [23, 24].

Moreover, evidence points to a bidirectional relationship between distress and medical errors: not only can distress increase the risk of errors, but involvement in medical errors may also exacerbate emotional distress, thereby perpetuating a harmful cycle. [22].

3.3 | Health Care System

Physicians experiencing burnout are more than twice as likely to leave their practice, [25] with lack of professional fulfilment as a key predictor of intent to leave. [26].

Reducing physician burnout and promoting well-being are critical elements in addressing the global physician workforce shortage [27] and represent a cost-effective strategy that helps retain experienced clinicians, reduces turnover, and ensures continued access to high-quality care for patients. [28].

4 | Work- and System-Related and Individual Risk Factors for Reduced Well-Being

Developing supportive and evidence-based interventions requires a deeper understanding of the demands placed on healthcare workers. These contributing factors are typically categorised into two broad domains: system- and work-related factors, which account for approximately 80% of the burden, and individual-level factors, which contribute the remaining 20%. [29, 30] (Figure 1)

4.1 | Work- and System-Related Risk Factors in Gastroenterology

Gastroenterology is a procedural specialty, with complex, invasive interventions. Burnout in gastroenterology is predominantly

TABLE 1 | Summary of systematic reviews and meta-analyses on interventions to reduce physician burnout.

First author	Title	Publication date	Journal	Study design	Number of studies included	Investigation window	Interventions	Specialisation	Profession	Level of education	Region	Components including	Burnout measurement tools used	Results
Organisationally focused interventions														
Belkic et al.	Toward better prevention of physician burnout: insights from individual participant data using the MD-specific Occupational Stressor Index and organizational interventions	2025	Frontiers in Public Health	Systematic review and IPD analysis	3 studies for IPD analysis; 33 studies for systematic review	2003–2023	Various organisational interventions	Various (incl. internal medicine, emergency medicine, surgery)	Physicians	Various	USA ($n = 29$), Australia, Denmark, Greece, Norway ($n = 1$)	Reduction in the number of workdays/week, staffing, schedule; peer-to-peer recognition program	CBI for IPD analysis	Results of IPD analysis: Adequate staffing was pivotal. Clerical staff off-loaded administrative burden. Information-technology staff helped diminish interruptions, enhancing workflow. Cross-coverage reduced time constraints, ensured separate periods for non-clinical tasks, and ≥ 1 work-free day/week
Craig et al.	The burden of the digital environment: a systematic review on organization-directed workplace interventions to mitigate physician burnout	2021	Journal of the American Medical Informatics Association	Systematic review	38	2010–2020	Organisational interventions: Teamwork, time, transition, technology	Various (incl. internal medicine, pediatrics, surgery)	Predominantly physicians	Various	USA ($n = 35$); UK ($n = 1$), multinational ($n = 2$)	Teamwork, time, transition (workflow changes); technology; digital environment (EHR; new technology, training)	MBI; surveys developed by authors	Burnout was decreased by interventions that optimized technologies (primarily electronic health records), provided training, reduced documentation and task time, expanded the care team, and leveraged quality improvement processes in workflows
Seo et al.	Addressing the physician burnout epidemic with resilience curricula in medical education: a systematic review	2021	BMC Medical Education	Systematic review	21	1982–2020	Organisational interventions: Resilience curriculum	Various (incl. internal medicine, surgery, pediatrics)	Physicians, medical students	Residents, medical students	USA ($n = 16$), Canada, China, Brazil, South Africa and Australia ($n = 1$)	Resilience curricula: Group discussion, reflection, and skillbuilding exercises; relaxation exercise; breathing awareness, mindfulness meditation; interactive Real life scenarios; cognitive restructuring; stress reduc-tion exercises; didactic presentations	MBI, ProQOL	Findings suggest that resilience curricula may be of benefit to medical trainees: Considerable variation in curricula outcome measures, with the majority reporting modest improvement in resilience, while three studies reported worsening of resilience upon completion of

(Continues)

TABLE 1 | (Continued)

First author	Title	Publication date	Journal	Study design	Number of studies included	Investigation window	Interventions	Specialisation	Profession	Level of education	Region	Components including	Burnout measurement tools used	Results
														training. Due to the mixed and inconsistent outcome measures reported in the included studies, the overall benefit (or harm) of resilience curricula cannot be determined
Sephien et al.	Resident duty hours and resident and patient outcomes: Systematic review and meta-analysis	2022	Medical Education	Systematic review and meta-analysis	9	2004–2020	Organisational interventions: Duty hours	Various (incl. internal medicine, general surgery, pediatrics)	Physicians	Residents	Nor reported	Schedule limitations; elimination of extended shifts, protected sleep time during night shifts;	MBI	Shorter resident duty hours is possibly associated with improvement in resident-based outcomes: A shorter shiftlength compared with longer shift length was associated with significantly less emotional exhaustion (standardised mean difference [SMD] = −0.11, 95% CI = −0.21–0.00; $p = 0.04$) and less dissatisfaction with overall well-being (OR = 0.61, 95% CI 0.38, 0.99)
Both organisationally and individually focused interventions														
De Simone et al.	Organizational strategies to reduce physician burnout: a systematic review and meta-analysis	2019	Aging Clinical and Experimental Research	Systematic review and meta-analysis	19	2005–2016	Organisation-directed ($n = 7$); physician-directed ($n = 13$)	Primary care, intensive care, oncology, secondary care, internal medicine, general medicine	Physicians	Not specified	Not reported	Organisation-directed: Workload interventions focusing on rescheduling hourly shifts & reducing workload, discussion meetings to enhance teamwork and leadership, structural changes, communication skills training; physician-directed: Mindfulness-based stress reduction techniques, educational interventions targeting physicians' self-confidence and	MBI or other validated measures of burnout	Pooled interventions were associated with small significant reductions in burnout (SMD = −0.289; 95% CI, −0.419 to −0.159; $I^2 = 29\%$). Organization-directed interventions were associated with a medium reduction in burnout score (SMD = −0.446; 95% CI, −0.619 to −0.274; $I^2 = 8\%$) while physician-directed interventions were associated with a

(Continues)

TABLE 1 | (Continued)

First author	Title	Publication date	Journal	Study design	Number of studies included	Investigation window	Interventions	Specialisation	Profession	Level of education	Region	Components including	Burnout measurement tools used	Results
												communication skills, exercise		moderate reduction in burnout score (SMD = −0.178; 95% CI, −0.322 to −0.035; I^2 = 11%)
Haslam et al.	Systematic Review and Meta-Analysis of Randomized Trials Testing Interventions to Reduce Physician Burnout	2024	The American Journal of Medicine	Systematic review and meta-analysis	38	2005–2023	Organisation-directed (n = 2) & physician-directed (n = 15): Education n = 7; coaching n = 3; discussion group n = 1; mindfullness activities n = 4; schedule change n = 2	Not reported	Physicians	Not specified	Not reported	Coaching, education, cannabidiol, discussion group, mindfullness-activities, schedule change	CBI; MBI; National Study of the Changing Workforce OLBI; PFI; ProQOL, Shirom-Melamed Burnout Measure	Studies testing interventions to decrease physician burnout led to significant numerical improvements in some domains of burnout, but it is unlikely that these changes result in meaningful changes in clinical burnout
Kiratipaisarl et al.	Individual and organizational interventions to reduce burnout in resident physicians: a aystematic review and meta-analysis	2024	BMC Medical Education	Systematic review and meta-analysis	33	2008–2024	Individual interventions (n = 25); organisational interventions (n = 8)	Various (incl. internal medicine, emergency medicine, pediatrics, general surgery)	Physicians	Residents	United States (n = 24), Argentina (n = 2), Belgium, China, Philippines, UK, Netherlands (n = 1), Canada (n = 2)	Individual intervention: Mindfullness activities; wellness lecture, communication skill training, balint group, online group-coaching, mediation application; organsation-directed interventions: Shift length modification, alternate block schedule, work hour limitiation, healthy snacks)	MBI (9, 20 and 22 item versions)	Effectiveness of intervention demonstrated none to small practical significance in improving burnout: Individual coaching intervention led to a small yet significant improvement in EE, while individual meditation interventions were associated with a similar small but significant enhancement in PA. Organizational intervention, primarily focused on improved learning environment, resulted in small but significant enhancements in PA. Limited strength of these recommendations due to risk of bias and inconsistency in the data

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TABLE 1 | (Continued)

First author	Title	Publication date	Journal	Study design	Number of studies included	Investigation window	Interventions	Specialisation	Profession	Level of education	Region	Components including	Burnout measurement tools used	Results
Individually focused interventions														
Boet et al.	Impact of coaching on physician wellness: A systematic review	2023	PLoS ONE	Systematic review	14	2016–2022	Individual interventions: Coaching	Various; 50% GP or internal medicine	Physicians	Various	USA ($n = 11$), Australia, Denmark, Netherlands ($n = 1$)	Coaching by trained coaches	MBI; abbreviated MBI; PFI subscale	Of the 13 included studies with a quantitative component, 7 reported a decrease in EE (n participants = 612 [58%]) and 5 reported a decrease in overall burnout (n participants = 505 [48%])
Eskander et al.	Evaluating Wellness Interventions for Resident Physicians: A systematic Review	2021	Journal of Graduate Medical Education	Systematic review	18	1991–2019	Individual interventions: Wellness	Various (incl. oncology, internal medicine, pediatrics, surgery)	Physicians	Residents	Not reported	Wellnes interventions; debriefing sessions; discussion groups; resilience skills training; art of seeing; humanism curriculum; BATHE psychotherapy; reflective writing; heartfulness meditation (group sessions + personal practice); mindfulness-based stress reduction (group course + home practice); peer mentoring	Various wellness measurement tools, focus on burnout: MBI, ProQOL	Several factors that can contribute to the success of a wellness intervention: Grounding the intervention in educational theory, soliciting participant feedback, relying on voluntary participation, and integrating the intervention into the existing GME curricula
Salvado et al.	Mindfulness-Based Interventions to Reduce Burnout in Primary Healthcare Professionals: A Systematic Review and Meta-Analysis	2021	Healthcare (Basel)	Systematic review and meta-analysis	Studies included in qualitative analysis ($n = 10$) Studies included for meta-analysis ($n = 6$)	2009–2020	Individual interventions: Mindfullness-based interventions	Primary care	Predominantly physicians	Not specified	USA ($n = 3$), Spain ($n = 4$), Brazil, UK, Netherlands ($n = 1$)	Mindfulness-based stress reduction; mindful medicine curriculum; mindfulness-based cognitive therapy (meditation exercises, mindfulness practices, yoga, dialogue groups, breathing)	MBI (mainly 22-item version; + 20 or 16-item version)	Meta-analytical data suggest that MBIs effectively reduce burnout symptoms, although with a small to moderate effects: The pooled analysis revealed a moderate significant beneficial effect of MBIs on EE (SMD = −0.54; 95% CI, −0.72 to −0.36;

(Continues)

TABLE 1 | (Continued)

First author	Title	Publication date	Journal	Study design	Number of studies included	Investigation window	Interventions	Specialisation	Profession	Level of education	Region	Components including	Burnout measurement tools used	Results
														p-value < 0.001); a small significant beneficial effect of MBIs on DP (SMD = −0.34; 95% CI, −0.52 to −0.17; p-value < 0.001) and a small significant beneficial effect of MBIs on PA (SMD = 0.34; 95% CI, 0.17 to 0.52; p-value < 0.001)
Tement et al.	The Impact of Psychological Interventions with Elements of Mindfulness (PIM) on Empathy, Well-Being, and Reduction of Burnout in Physicians: A Systematic Review	2021	International Journal of Environmental Research and Public Health	Systematic review	18	2012–2019	Individual interventions: psychological interventions	Various (incl. internal medicine, pediatrics)	Physicians	Various	Australia (n = 1), USA (n = 11); Netherlands (n = 2); UK (n = 3); Spain (n = 1)	Mindfulness-based stress reduction (MBSR); mindfulness, discussion groups, stress management and resilience training (SMART); "Art of Seeing" course; wellness curriculum; mindfulness intervention using smartphone application	MBI	Positive impact of psychological interventions with elements of mindfulness (PIMs) on empathy, well-being, and reduction in burnout in physicians.In eight studies that reported on burnout using MBI there was a significant improvement in at least one burnout subscale confirmed within the subgroup of physicians, whereas for residents there was only a positive statistically insignificant trend noticed

(Continues)

TABLE 1 | (Continued)

First author	Title	Publication date	Journal	Study design	Number of studies included	Investigation window	Interventions	Specialisation	Profession	Level of education	Region	Components including	Burnout measurement tools used	Results
Vasquez et al.	Skills-Based Programs Used to Reduce Physician Burnout in Graduate Medical Education: A Systematic Review	2021	Journal of Graduate Medical Education	Systematic review	24	1991–2019	Inidividual interventions: Skills-based programs	Various (incl. internal medicine, general surgery, pediatrics, oncology, emergency medicine)	Phyisicans	Residents	Nor reported	Groups, at home exercises lectures, coaching on general wellness, communication skills; coping skills, mind-body skills training, mindfulness activities, respiration methods, relaxation training, yoga, free gym accress	MBI, CBI, PFI	Of 24 studies included in review, 8 produced significant positive results pertaining to burnout reduction using the MBI and 3 produced significant results using other burnout measurement scales. Certain program structures and content provide more significant burnout reduction than others, including program participation during protected education time and utilizing multiple teaching methods (i.e., didactic, role-play, and group discussion)

Note: The table includes systematic reviews and meta-analyses published between 2020 and 2025.
Abbreviations: CBI = Copenhagen Burnout Inventory; CI = Confidence interval; DP = Depersonalization; EE = Emotional exhaustion; IPD = Individual-participant Data; MBI = Maslach Burnout Inventory; OLBI = Oldenburg Burnout Inventory; OR = Odds ratio; PA = Personal accomplishment; PFI = Professional Fulfillment Index; ProQOL = Professional Quality of Life Scale; SMD = Standardized mean difference.

TABLE 2 | Summary of organisational and individual interventions to reduce burnout and improve well-being among physicians.

Category of intervention	First author	Title	Journal	Year	Study design	Number of participants	Study group	Subject area	Region	Intervention	Duration of intervention	Burnout measurement tools used	Outcome regarding burnout
Organisationally focused interventions													
Working conditions	Gregory et al.	An Organizational Intervention to Reduce Physician Burnout	Journal of Healthcare Management	2018	Pre/post, quasi-experimental study design	112 unique physicians - 199 responses (96 treatment, 104 control): 69 at baseline, 60 at 3-month follow-up, and 70 at the final 6-month follow-up	Primary care physicians	Primary care	USA	Replace dyad: physician + certified medical assistant (CMA) with 2 providers + 3 CMAs	Two follow-up assessments were conducted at 3 and 6 months postintervention	MBI	Decrease in the emotional exhaustion dimension of burnout of 6.989 units ($p = 0.039$)—High DP at 6M: 12% int versus 23% control
Working conditions	Gordon et al.	Individual job redesign: Job crafting interventions in healthcare	Journal of Vocational Behavior	2018	Quasi-experimental study; 2 studies (physicians and nurses; only physicians included in this table)	119; experimental group $n = 48$, control group $n = 71$	Medical specialists	NR	Netherlands	Job cafting intervention: Training and setting personal job crafting goals	3 weeks	OLBI	Lower levels of exhaustion were reported at the follow-up by the intervention group; $F(1, 117) = 5.00$, $p = 0.03$ than the controls
Working conditions	Linzer et al.	A Cluster-Randomized Trial of Interventions to Improve Work Conditions and Clinician Burnout in Primary Care: Results from the Healthy Work Place (HWP) Study	Journal of General Internal Medicine	2015	Cluster-randomized trial	166; control group $N = 83$, intervention group $N = 83$	Primary care clinicians	Primary care	USA	(1) Improving communication among clinicians and staff; (2) changes in workflow; (3) Quality improvement (QI) projects addressing clinician concerns	Follow-up at 12–18 months	Five item scale, focusing primarily on emotional exhaustion, with a score of 3 or higher indicating burnout	More intervention clinicians showed improvements in burnout (21.8% vs. 7.1% less burned out, $p = 0.01$). Burnout was more likely to improve with workflow interventions [odds ratio (OR) of improvement in burnout 5.9, $p = 0.02$], and with targeted QI projects than in controls (OR 4.8, $p = 0.02$)
Working conditions	Heppe et al.	Resident Burnout, Wellness, Professional Development, and Engagement Before and After New Training Schedule Implementation	JAMA Network Opens	2024	Nonrandomized pre- and postintervention survey study	313 eligible residents; 216 completed surveys	Residents	Internal medicine	USA	Alternate 4 + 4 block schedule (4 inpatient on-call weeks plus 4 outpatient off-call weeks)	Follow-up after 1 year and 2 years	MBI	Improvements in EE and DP scores on the MBI: The prevalence of high EE decreased from 48.2% of residents (41 of 85) before the intervention to 14.3% (9 of 63) and 19.1% (13 of 68) in the postintervention years ($p < 0.001$). High DP prevalence decreased from 44.7% (38 of 85) to 20.6% (13 of 63) and remained unchanged at 20.6% (14 of 68) in the last year ($p < 0.001$)
Working conditions	Ogunyemi et al.	Graduate medical education-led continuous assessment of burnout and learning environments to improve residents' wellbeing	BMC Medical Education	2022	Longitudinal interventional study	271	Residents	Various (incl. internal medicine, general surgery)	USA	PDSA continuous quality framework construct, with focus on: Learning environment and workflow streamlining; organization directed interventions jncluded leadership changes, faculty recruitment, administrative support and technological	5 follow-up measurements over 3 years	MBI	MBI scores of each residency training program showed similar trends, which reached significance only for the internal medicine residency training program. Internal medicine residency training program: EE scores decreased from 30.12 [categorized as high] to 20.8 [categorized as

(Continues)

TABLE 2 | (Continued)

Category of intervention	First author	Title	Journal	Year	Study design	Number of participants	Study group	Subject area	Region	Intervention	Duration of intervention	Burnout measurement tools used	Outcome regarding burnout
										innovations			moderate] ($p < 0.001$). DP scores decreased from 13.1 [categorized as high] to 9.5 [categorized as moderate] ($p < 0.001$), and PA scores increased from 36.8 [categorized as moderate] to 41.7 [categorized as high] over time ($p < 0.001$)
Working conditions	Micek et al.	The effect of remote scribes on primary care physicians' wellness, EHR satisfaction, and EHR use	Healthcare (Amsterdam)	2022	Pre-post, non-randomized controlled evaluation	105; intervention $n = 37$; control group $n = 68$	Physicians	General internal medicine, family medicine, general pediatrics and adolescent medicine	USA	Pilot scribe program in multiple specialties, to help shift EHR documentation tasks to scribes; scribes were paired with physicians via an audio-only cellphone connection to hear and document in real-time	5 months pre-intervention versus 5 months post-intervention (shortend due to COVID-19)	Mini-Z single-item burnout measure, PFI	For the Mini-Z single-item burnout measure, burnout among scribe users reduced from 70.3% to 51.4% ($p = 0.07$) while among controls it increased from 50.0% to 60.3%; no significance for burnout measured by PFI
Digitalisation/AI	Shah et al.	Ambient artificial intelligence scribes: physician burnout and perspectives on usability and documentation burden	Journal of the American Medical Informatics Association	2025	Prospective quality improvement study	38; 48 enrolled in the pilot; 38 included in the paired pre and post-survey analysis; 46 in the unpaired postsurvey analysis.	Physicians	Primary care, ambulatory specialty (includes cardiology, gastroenterology, and rheumatology)	USA	Pilot implementation of an ambient AI scribe technology	3 months	PFI-WE subscale	Large statistically significant reduction in the 4-item physician task-load score derivative and burnout (−1.94 on 0-10 scale; $p < 0.001$)
Digitalisation/AI	Garcia et al.	Artificial Intelligence–Generated Draft Replies to Patient Inbox Messages	JAMA Network Opens	2024	Prospective, single-group quality improvement study	Overall cohort ($N = 162$); survey cohort ($n = 73$)	Predominantly physicians and APP	Primary care, gastroenterology and hepatology	USA	Draft replies to patient portal messages generated by a health Insurance Portability and Accountability Act–compliant electronic health record–integrated large language model	5 weeks	PFI-WE subscale	Statistically significant reductions in 4-item physician work exhaustion and burnout score (PFI-WE): Mean [SD], 1.95 [0.79] presurvey versus. 1.62 [0.68] postsurvey; paired difference, −0.33; 95% CI, −0.50 to −0.17; $p < 0.001$
Leadership development	Sears et al.	Leadership development as a novel strategy to mitigate burnout among female physicians	PLoS One	2025	Survey-based, prospective, non-randomized, pre-/post-intervention, non-equivalent comparison group study	1616; intervention group $n = 190$; control group = 1426 across 3 groups	Physicians	Various	Various	The Women Leaders in Medicine (WLiM) program included twice-annual in person summits and support programs (connection, networking and education) throughout the 2-year study period	2 years; 3 follow-up points over 2 years	MBI	Participants in WLiM had decreased frequency of high EE (mean 2.9 decreased to 2.5), decreased occurrence of high DP (mean 1.6 decreased to 1.3), and improved levels of PA (mean 4.7 improved to 5.1) burnout scores on the MBI-EE were significantly higher on the follow up survey for female physicians not participating in WiLM compared to WLiM participants (OR = 2.5r, 95% CI = 1.10–5.88; $p = 0.022$)

(Continues)

TABLE 2 | (Continued)

Category of intervention	First author	Title	Journal	Year	Study design	Number of participants	Study group	Subject area	Region	Intervention	Duration of intervention	Burnout measurement tools used	Outcome regarding burnout
Leadership development	Riall et al.	Maintaining the Fire but Avoiding Burnout: Implementation and Evaluation of a Resident Well-Being Program	Journal of the American College of Surgeons	2018	Pre–post interventional study	49	Residents	General surgery	USA	Participation in the Energy leadership well-being and resiliency program	Assessment at baseline and 1 year after implementation	MBI general survey	Scores on the emotional exhaustion scale of the Maslach burnout Inventory decreased (from 16.8 ± 8.4 to 14.4 ± 8.5; $p = 0.04$)
Mentoring/ Peer support	West et al.	Colleagues Meeting to Promote and Sustain Satisfaction (COMPASS) Groups for Physician Well-Being: A Randomized Clinical Trial	Mayo Clinic Proceedings	2021	RCT	125; intervention group $n = 64$; control group $n = 61$	Practicing physicians	General medicine	USA	Self-facilitated physician small-group meetings	6 months; follow-up at the end of the 6-month study intervention, and at 6 months post-study	MBI	At 6 months after completion of the intervention (12 months from baseline), the rate of overall burnout had decreased by 12.7% (31/62 to 19/51) in the intervention arm versus a 1.9% increase (25/61 to 24/56) in the control arm ($p < 0.001$)
Mentoring/ Peer support	Nindra et al.	Final results of the National Oncology Mentorship Program 2023 and its impact on burnout and professional fulfilment	Internal Medicine Journal	2024	Single-arm, prospective cohort study	112	Medical oncoligsts and trainees	Oncology	Australia	National Oncology Mentorship Program: Following the initial match done by thementorship program organising committee using partici-pants' interests and work location, a 1-h virtual orientation session was conducted. Pairswere encouraged to meet at least three times throughoutthe year either virtually or face-to-face	1 year, measurement at baseline and end-of-year	MBI	82% of mentees and 77% of mentors were classified as burnt out, which reduced to 57% and 51% at theconclusion of NOMP23, a reduction of 25% and 26% ($p < 0.01$)
Individually focused interventions													
Coaching	Dyrbye et al.	Professional Coaching and Surgeon well-being: A Randomized Controlled Trial	Annals of Surgery	2023	RCT	80; intervention immediate coaching: $n = 40$, control group delayed control $n = 40$	Physicians	Surgery	USA	6 monthly professional coaching sessions	6–12 Months (incl. delayed intervention)	MBI	Burnout: Overall burnout decreased 5.0% in intervention versus increased 2.5% in control ($p = 0.007$) Depersonalization: Significant reduction; $p = 0.03$
Coaching	Fainstad et al.	Effect of a Novel Online Group-Coaching Program to Reduce Burnout in Female Resident Physicians	JAMA Network Opens	2022	RCT	101; intervention group $n = 50$; control group $n = 51$	Female resident physicians	Various (surgical and nonsurgical)	USA	Online group coaching program ("Better Together"), delivered by certified physician coaches	4 months	MBI	Emotional exhaustion: Intervention reduced EE (mean −3.26 [1.25]) versus. control increased (+1.07 [1.12]); $p = 0.01$

(Continues)

TABLE 2 | (Continued)

Category of intervention	First author	Title	Journal	Year	Study design	Number of participants	Study group	Subject area	Region	Intervention	Duration of intervention	Burnout measurement tools used	Outcome regarding burnout
Coaching	Fainstad et al.	Impact of an Online Group-Coaching Program on Ambulatory Faculty Physician Well-Being: A Randomized Trial	Journal of the American Board of Family Medicine	2025	RCT	160; intervention group $n = 82$; control group $n = 78$	Ambulatory faculty physicians	Various (incl. internal medicine, pediatrics)	USA	Online group coaching program ("Better Together") delivered by certified physician coaches	4 months	MBI	Depersonalization: Significantly improved ($\Delta = -1.72$ points; 95% CI: −3.26, −0.17; $p = 0.03$)
Coaching	Mann et al.	Online Well-Being Group Coaching Program for Women Physician Trainees: A Randomized Clinical Trial	JAMA Network Opens	2023	RCT	1017 female physician trainees (502 intervention, 515 control)	Women physician trainees	Various (surgical and nonsurgical)	USA	4-month program (better Together training), weekly group coaching sessions, weekly self-study modules, unlimited anonymous write coaching	4 months	MBI	EE decrease of an estimated mean (SE) −3.81 (0.73) points in the intervention group versus with increase of 0.32 (0.57) points in control group (absolute difference [SE], −4.13 [0.92] points; 95% CI, −5.94 to −2.32 points; $p < 0.001$). DP decrease of a mean (SE) of −1.66 (0.42) points in the intervention group versus increase of 0.20 (0.32) points in the control group (absolute difference [SE], −1.87 [0.53] points; 95%CI, −2.91 to −0.82 points; $p < 0.001$)
Coaching	McGonagle et al.	Coaching for Primary Care Physician Well-Being: A Randomized Trial and Follow-up Analysis	Journal of Occupational Health Psychology	2020	RCT with follow-up analysis	59; intervention gruop $n = 29$, control group: $n = 30$ (waitlist control)	Physician	Primary care	USA	6 coaching sessions of the positive psychology coaching program	6 sessions (over a 3 months period) + follow-up at 3 and 6 months	MBI	Burnout decreased significantly: $F(1, 48) = 9.82$, $p = 003$, $\eta^2 = 075$
Coaching	Palamara et al.	Impact of a Virtual Professional Development Coaching Program on the Professional Fulfillment and Well-Being of Women Surgery Residents	Annals of Surgery	2023	RCT	237 study participants; respondents: Control ($N = 66$) intervention ($N = 84$)	Residents	Surgery	USA or Canada	Virtual professional development coaching program on the professional fulfillment and well-being of women surgery residents: Coaches (attending surgeons) completed a 3-h, in-person training; each coach was paired with 1–2 residents; residents were expected to complete ≥ 3 sessions (45–60 min each) over a 9-month intervention period (more if desired)	9 months	PFI	Presurvey and postsurvey in the intervention group: Decrease in burnout [mean (SD) pre 1.39 (0.68) versus post 1.19 (0.58) $p = 0.026$; the decline in PFI burnout scores in the intervention arm compared with the control arm did not reach statistical significance (−0.20 vs. 0.01, $p = 0.088$; $d = -0.29$)

(Continues)

TABLE 2 | (Continued)

Category of intervention	First author	Title	Journal	Year	Study design	Number of participants	Study group	Subject area	Region	Intervention	Duration of intervention	Burnout measurement tools used	Outcome regarding burnout
Yoga	Korkmaz et al.	Sudarshan Kriya Yoga Breathing and a Meditation Program for Burnout Among Physicians	JAMA Network Opens	2024	RCT	129; 66 intervention group $n = 66$; control group $n = 63$	Physicians	Various (including internal medicine, pediatrics, emergency medicine, medical oncology, pediatric surgery)	Turkey, Germany, Dubai	SKY (Sudarshan Kriya Yoga)	Initial 3-day training + 8-week follow-up period	PFI	Posttraining: Burnout dropped to from 1.72 (0.80) to 1.21 (0.69) in the intervention group and from 1.78 (0.91) to 1.63 (0.91) in the control group ($p = 0.007$) Postintervention: Burnout further decreased from to 1.12 (0.73) in the intervention group to 1.53 (0.98) in the control group ($p = 0.01$)
Yoga	Loewenthal et al.	Evaluation of a Yoga-Based Mind-body intervention for Resident Physicians: A Randomized Clinical Trial	Global Advances in Health and Medicine	2021	RCT	44; intervention ($n = 38$) versus control ($n = 18$)	Residents	Various (incl. internal medicine)	USA	Mind-body intervention (yoga-based)	6 weeks + 2-month follow-up	MBI, short form, 2 items; PFI, 16 items	Within group analysis: RISE group improved in total burnout: Total burnout: $t(24) = -3.08$, $p = 0.021$; from baseline to 2-month follow-up: total burnout $t(24) = -3.08$, $p = 0.005$, $d = 62$.
Education	Congiusta et al.	The Use of Online Physician Training Can Improve Patient Experience and Physician Burnout	American Journal of Medical Quality	2020	RCT	63; intervention $n = 30$, control $n = 33$	Physicians	Internal medicine, cardiology, obstetrics/ gynecology, surgery	USA	24-week online curriculum ("clinician experience Project") with video-based modules, quizzes, peer discussions, and physician engagement activities	24 weeks	MBI	Significant improvements in MBI depersonalization (-2.43, $p = 0.023$) and MBI personal achievement ($+3.10$, $p = 0.0007$)
Meditation	Loiselle et al.	Effects of Transcendental Meditation on Academic Physician Burnout and Depression: A Mixed Methods Randomized Controlled Trial	Journal of Continuing Education in the Health Professions	2023	Mixed methods RCT (RCT + qualitative interviews)	Intervention group $n = 15$, control group $n = 18$ physicians	Academic physicians	Various	USA	Mind-body intervention (meditation-based): Transcendental Meditation (TM), 20 min twice daily	4 months (baseline, 1-month, 4-month assessments)	MBI	Significant improvements at 4 months relative to the control group of burnout ($p = 0.020$), EE ($p = 0.042$), PA ($p = 0.018$)
Mindfullness	Fendel et al.	Impact of a tailored mindfulness-based program for resident physicians on distress and the quality of care: A randomised controlled trial	Journal of Internal Medicine	2021	RCT	147; intervention group $n = 76$, control group $n = 71$	Residents	Various (incl internal medicine, pediatrics, surgery)	Germany	Tailored mindfulness-based program (group sessions + retreat) followed by 4-month maintenance phase	8 weeks + 4-month maintenance and a follow-up at 12 months	CBI + additional stress, empathy, attentiveness, and error reports	Burnout (primary outcome): $d = 0.32$, $p = 0.046$

Note: The table includes RCTs published between 2020 and 2025 that evaluated intervention to reduce physician burnout and demonstrated a statistically significant effect on burnout. For organisation-directed interventions, owing to the scarcity of studies, eligibility was broadened to include all interventional study designs reporting objective, quantifiable burnout outcomes from 2015 onwards.
Abbreviations: APP = Advanced practice provider; CBI = Copenhagen Burnout Inventory; CI = Confidence interval; DP = Depersonalization; EE = Emotional exhaustion; MBI = Maslach Burnout Inventory; OLBI = Oldenburg Burnout Inventory; PA = Personal accomplishment; PFI/PFI-WE = Professional Fulfillment Index/Work Exhaustion subscale; SE = Standard error.

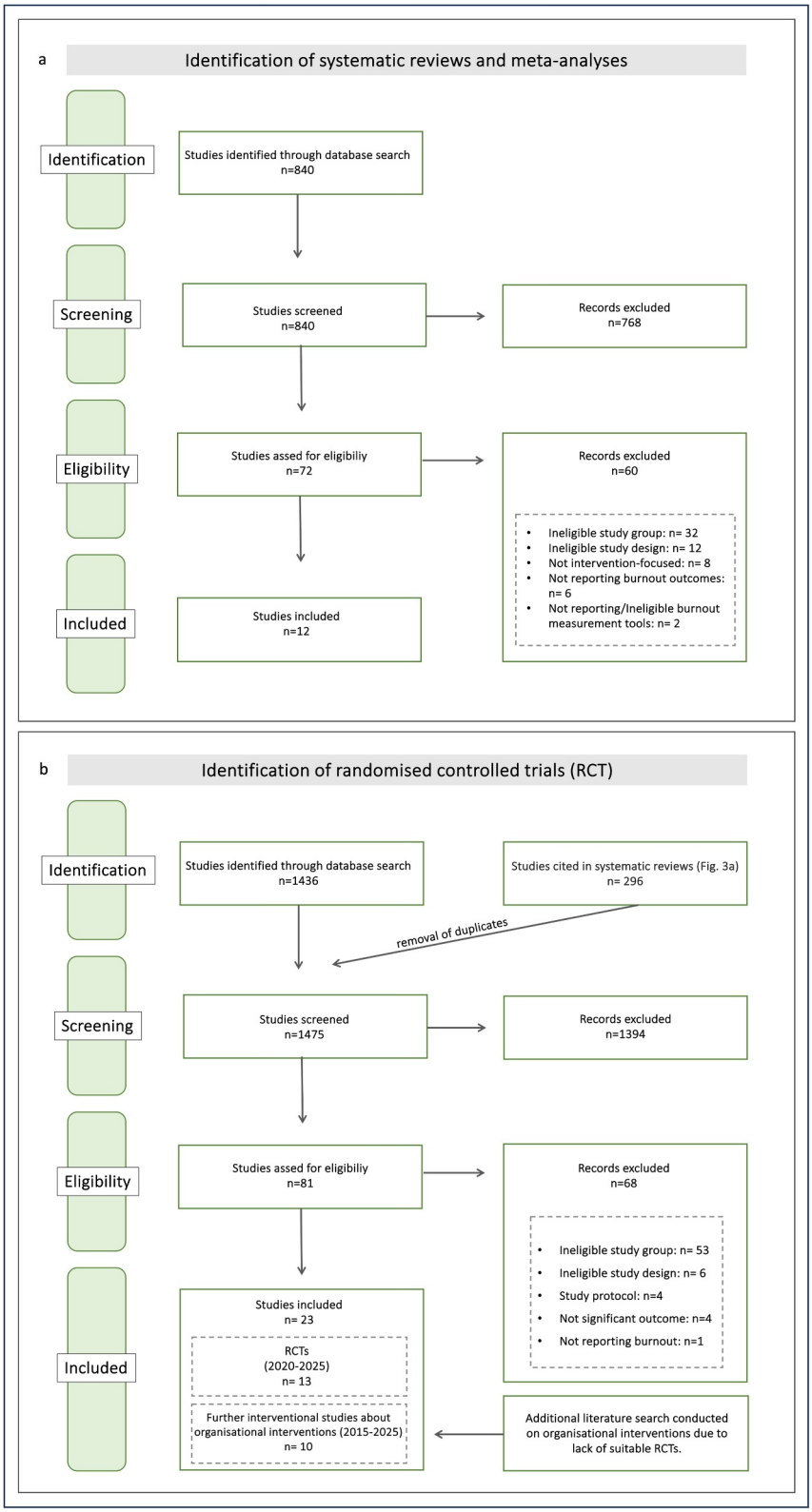

FIGURE 3 | PRISMA flow diagram of study selection: Systematic reviews and meta-analyses (a) and randomised controlled trials (RCTs) (b). The diagram illustrates the number of records identified through database searching and other sources, the number of records screened and assessed for eligibility, and the number of studies included in the final review.

driven by work-related factors, particularly high workloads [14], including emergency procedures and extended hours. [29, 31, 32].

"Administrative harm", defined as the adverse consequences of administrative decisions within healthcare, contributes to the challenges health care workers face. The lack of evidence-based

approaches to optimise workload, team structures, and workflow processes perpetuates inefficiencies and physician dissatisfaction. [33].

4.2 | Individual Risk Factors

4.2.1 | Age and Career-Stage

Data on age and career stage as risk factors for burnout are inconsistent. Some studies report higher burnout rates among younger physicians, with prevalence reaching up to 50% among gastroenterology fellows and elevated rates in endoscopy trainees. [34] However, a recent meta-analysis of our group found no significant differences in burnout prevalence by career stage ($p = 0.41$) [4].

These findings underscore that improving physician well-being is a cross-generational priority.

4.2.2 | Gender

Burnout affects physicians of all genders but is 20%–60% more prevalent among women across specialties. [22, 35, 36] Female gastroenterologists and endoscopists have 53% increased odds of burnout compared with their male counterparts, as confirmed by the meta-analysis of our group. [4] Contributing factors include caregiving responsibilities, hospital-related stressors, and differing patient expectations. [37, 38] Female physicians tend to have more female patients, longer consultations, and higher exposure to psychosocially complex cases [39].

Organisational barriers such as underrepresentation in leadership, slower career progression, pay inequity, and lower academic promotion rates increase the feeling of being undervalued among female physicians [40].

Data on ethnicity, disability, LGBTQ+ status and geographic income level in relation to burnout in gastroenterology are currently scarce or absent in the published literature. In a cross-sectional survey study of academic physicians and trainees, attendings and trainees with a sexual and gender minority (SGM) status had higher levels of burnout and lower levels of professional fulfillment [41].

Studies show that mistreatment is common among LGBTQ+ surgery residents, underscoring the need for targeted initiatives to improve workplace culture and support retention of sexual and gender minority individuals in academic medicine. [42, 43].

4.2.3 | Additional Risk Factors

Additional contributors include having children at home, shorter time in practice, and reduced leisure time [29, 44].

Extended hours on patient-related work at home further increase strain. [45] Other individual vulnerabilities include sleep deprivation, poor coping strategies, limited social support, and neglect of self-care. [46].

5 | From Awareness to Action: Evidence-Based Interventions to Improve Well-Being—A Scoping Review

Improving physician well-being in gastroenterology requires a shift from awareness to actionable strategies that address the root causes of burnout. [6].

We conducted a scoping review (2020–2025) of recent meta-analyses and systematic reviews (Table 1), and RCTs (Table 2) on evidence-based interventions to reduce physician burnout, extending eligibility for organisation-directed interventions to 2015 owing to the scarcity of valid studies. Reporting followed the PRISMA extension for Scoping Reviews (PRISMA-ScR) checklist [47].

Studies were included if they targeted physicians in UEG specialties, assessed workplace well-being with a standardised burnout measure, and implemented interventions. The complete protocol, including search terms, is provided in the supplementary materials.

Interventions were classified as organisational (system-level or resource-dependent, e.g. workflow, leadership) or individual (self-directed, e.g. mindfulness, coping skills). This study demonstrates for the first time that in UEG disciplines, interventions addressing organisational factors are underrepresented compared with those targeting individuals, extending observations previously reported for physicians in general. [48–50] (Table 1 [51–63] and Table 2 [64–86]).

5.1 | Organisationally Focused Interventions

A meta-analysis by Panagioti et al. demonstrated that organisation-directed interventions are more effective than those targeting individuals, underscoring the need to view burnout as a structural issue within healthcare systems rather than a personal failing [49].

Despite heterogeneous data among system-level interventions [58], those addressing workload and working hours show moderate-to-large effects and should be prioritised. [56, 87] (Table 1) Reducing workloads is important, as the rates of physicians reporting at least one symptom of burnout dropped from 45.5% in 2011 to 38.0% in 2020, corresponding with decreased work hours [88, 89].

Duty hour restrictions alone may be insufficient; combining them with workflow modifications appears more effective in supporting residents. [58] Effective measures further include the implementation of an alternate 4 + 4 block schedule (4 inpatient on-call weeks plus 4 outpatient off-call weeks). [64] (Table 2).

A systematic review revealed effective outcomes for workplace well-being interventions in 29 of the 33 studies included, with significant improvements in well-being, work engagement, quality of life and resilience, and reductions in burnout, perceived stress, anxiety and depression [48].

Redistributing tasks among medical assistants, nurses, and physician assistants can lead to significant reductions in burnout scores of physicians and may help mitigate staff shortages. [66, 90] This underscores the need to optimise workplace resource management [91], with effective interventions such as reducing administrative burden [92], EHR assistance, and scribes [69] (Table 2).

5.1.1 | Digitalisation, AI and Physician Workload

Digital medicine, artificial intelligence (AI), and telemedicine are being investigated to improve diagnostic precision, support clinical decision-making, and enable predictive modeling. [91] By automating routine documentation and administrative processes, these technologies have the potential to significantly reduce physician workload. [93].

Recent pilot studies of AI scribe tools and AI-generated patient responses demonstrated reduced task burden and burnout among clinicians, with increased usability across disciplines such as primary care, gastroenterology, and hepatology. [70, 71] (Table 2).

5.1.2 | Mentoring and Peer-support Networks

Structured mentorship and peer-support through physician small-group meetings significantly reduce burnout [75, 76] (Table 2); in a cancer-focused academic system of 22,000 employees, mentoring participation was associated with lower burnout [94], while peer support reduced distress and enhanced well-being [95, 96].

5.1.3 | The Role of Leadership in Promoting Physician Well-Being

Leadership across all levels of healthcare institutions shapes the professional environment and has a direct impact on well-being. [97–99] From department chairs to senior executives, leadership impacts work-life integration, job satisfaction, and the culture surrounding burnout prevention. [100] Notably, perceived leadership behaviors correlate strongly with physicians' intentions to leave the organisation [99].

A landmark study by Shanafelt et al. highlighted the importance of leadership behaviors such as promoting teamwork, supporting professional growth, and actively listening to staff concerns. [97] Leaders who seek feedback and advocate for system-level improvements play a decisive role in creating cultures where physician well-being is prioritised alongside patient care [101, 102].

Leadership initiatives can effectively mitigate burnout in UEG-related fields: Participation in a leadership and resiliency program to improve surgical residents well-being was associated with a significant decrease in emotional exhaustion [73], while the Women Leaders in Medicine program [72] resulted in significant improvements across all burnout dimensions (Table 2).

5.1.4 | Research and Evidence-Based Work Design

Evidence-based work design combines research findings, clinical and administrative expertise, data-driven strategies, and continuous, outcome-focused improvements to guide decision-making, ensuring that job demands and available resources are effectively aligned. Organisations that implement this paradigm shift can effectively contribute to enhance population health, optimize patient experience, reduce costs, and promote a more sustainable and supportive work environment for healthcare professionals. [33].

5.2 | Individual Level

There is convincing evidence supporting individual-level strategies to mitigate burnout. [61, 103] (Tables 1 and 2) Healthcare professionals are encouraged to prioritise self-care practices, including regular physical activity, healthy dietary habits, adequate sleep, and the maintenance of strong personal relationships. [87] As few as four 20-min app-based exercise sessions per week have been shown to significantly reduce depressive symptoms and burnout among healthcare workers compared with controls [104].

Innovative approaches such as the web-based Implementation for the Science of Enhancing Resilience (WISER) program [105] have shown promising results. WISER has been associated with sustained reductions in emotional exhaustion and depressive symptoms, as well as improved work-life integration—effects that persisted even 1 year after completion [105].

Mindfulness-based interventions have also been found to effectively reduce stress and burnout in healthcare providers, [80, 106] even in the absence of psychologist involvement. [107] These approaches aim to empower physicians to recognise psychological distress, identify burnout triggers, and apply problem-focused coping strategies to improve well-being and quality of life [108] (Table 2).

Furthermore, coaching programs [77–79, 84–86] have demonstrated positive outcomes on burnout (Table 2), with some interventions adopting a gender-specific approach. [78, 84, 86] (Table 2).

5.3 | Summary and Discussion of the Scoping Review

In summary, physician burnout is a complex, system-wide challenge requiring both organisational reform and individual support. Prior evidence by the meta-analysis by Shiha et al. established the high prevalence of burnout in gastroenterology and endoscopy. Our scoping review examined what works: we mapped evidence-based interventions at two levels —individual and organisation-level— and identified effective strategies to support action across both domains. Organisation-level measures should lead, as they target structural drivers of burnout, complemented by individual-level interventions to support clinicians.

Our scoping review reflects the current evidence base, which is weighted towards individual-level interventions, with fewer organisation-level studies. Many organisation-level evaluations used quasi-experimental or pre-post designs rather than randomised controlled trials, aligning with real-world implementation. Outcome measures were heterogeneous: The Maslach Burnout Inventory (MBI) was most common, alongside the Professional Fulfilment Index (PFI), the Copenhagen Burnout Inventory (CBI), and abbreviated scales, limiting direct comparability. Nonetheless, this heterogeneity characterises the current research landscape and offers indications of what may work in practice, while underscoring the need for additional, methodologically sound organisation-level intervention studies/trials and greater standardisation of outcome measures.

5.4 | Concrete Steps by National and International Societies

National, international, and specialist GI societies play an important role in promoting physician well-being.

Essential actions include: acknowledging the problem of physician burnout, committing to support member well-being and raising awareness, educating for change, integrating well-being into medical student and resident curricula, providing mentoring and coaching frameworks, supporting research and innovative technologies, generating and disseminating evidence, encouraging organisational interventions, promoting individual-level solutions, and collaborating nationally and internationally while advocating at the governmental level.

5.4.1 | Physician Well-Being in Gastroenterology: A Call for Systemic Action

UEG has launched a podcast entitled Physician Well-Being, highlighting that well-being concerns extend beyond the individual gastroenterologist to impact patients, colleagues, and the broader healthcare system.

To support gastroenterologists at all career stages, UEG has established a Career Development Program offering online webinars, mentoring group calls, meet-ups, and small group discussions. These initiatives are designed to enhance professional skills, broaden networks, and provide practical strategies for career progression. Current offerings include topics such as leadership development and academic career pathways (https://ueg.eu/education/online-education/career-development; https://gutflix.eu/).

UEG's Young Talent Group (YTG) is dedicated to supporting junior gastroenterologists, GI surgeons, and basic scientists across Europe. The YTG emphasizes safeguarding the welfare and interests of young medical professionals, recognizing that workforce shortages and increased workloads can negatively impact mental health and training outcomes.

UEG advocates for improved working conditions, sustainable working environments, and opportunities for training, research, and professional development. Additionally, UEG offers clinical and research fellowship opportunities to promote postgraduate education and mobility among young GIs across Europe and the Mediterranean area.

Furthermore, UEG actively collaborates with policymakers to promote digestive health and improve healthcare systems across Europe. By engaging in health policy developments, UEG aims to create a stronger health policy environment that benefits both patients and healthcare professionals.

In line with its Equality and Diversity Plan, UEG strives to ensure that all initiatives are inclusive and accessible, notably for underrepresented groups [109].

Acknowledgements

Open Access funding enabled and organized by Projekt DEAL.

Funding

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Supporting Information S1: ueg270149-sup-0001-suppl-data.docx.