



THE ART OF MEDICINE: A systematic literature review of the intersections of art and medicine



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Background

- Burnout is highly prevalent in medicine, affecting ~50% of physicians¹ and nearly half of medical students, with symptoms including emotional exhaustion and depersonalization².
- Peak burnout occurs mid-career (ages 45–54), a period typically associated with maximal productivity and career stability².
- Mental health burden is substantial: ~14% of physicians report suicidal ideation, yet only one-third seek care².
- Drivers of burnout include chronic occupational stressors, which are intensified by crises like COVID-19, and are linked to increased PTSD symptoms, anxiety, and functional impairment⁴.
- Burnout has wide-reaching consequences, including worse patient outcomes, increased medical errors and lawsuits, workforce turnover, and personal harm (e.g., accidents, suicide)⁵.
- Interest in provider wellbeing interventions is growing, with evidence supporting arts-based approaches (visual, literary, theater) to improve individual and collective wellbeing^{6,7}.
- “Arts prescribing” reflects a holistic care model, integrating creative engagement to support psychological and social health⁸.

Project Objective

To explore how art impacts healthcare through: 1) Examining the impacts of various art mediums on healthcare provider burnout; and 2) Exploring the impact of art-based interventions in medical education and their effects on clinical practice.

Methods

- Systematic literature review examining the intersection of art and medicine, conducted in PubMed and Google Scholar from March 2024 to December 2025 by two independent reviewers in accordance with PRISMA 2020 guidelines.
- Keywords: “art and medicine,” “physician burnout,” “medical humanities,” “wellbeing,” “visual thinking strategies,” “empathy,” “medical education”
- Inclusion Criteria:
 - Studies evaluating arts-based interventions (visual, literary, theater)
 - Focus on burnout prevention, medical education, or patient care
 - Use of measurable tools to assess outcomes
- Exclusion Criteria:
 - No arts-based intervention
 - No relevance to burnout, education, or patient care
 - No measurable outcome metrics

Results

Key Findings

- 36 studies that met inclusion criteria were included in the final review.
- Arts-based interventions consistently improve wellbeing and professional skills, although direct evidence for burnout reduction remains limited.

Visual Arts and Provider Wellbeing

- Improved tolerance for ambiguity and uncertainty, a protective factor against burnout^{9, 10, 11}
- Promoted interconnectedness and shared experiences among healthcare^{12, 13}.
- Effective across multiple specialties (e.g., EM, ICU, oncology, trainees)¹⁴⁻²⁰.

Literary and Performing Arts

- Enhanced understanding of patient and caregiver experiences^{21, 22}.
- Provided reflective outlets for stress and meaning-making²³.

Arts-Based Interventions in Medical Education

- Well-being curricula improved stress, emotional regulation, and resilience²⁶⁻²⁸.
- Improved empathy, communication, observation, reflection²⁹.
- Visual Thinking Strategies (VTS) enhanced perspective-taking and tolerance for ambiguity^{9, 30} and improved clinical observation and diagnostic skills³¹⁻³³.

Table 1: Qualitative well-being and empathy measurement tools

Measure	Domains (Behavioral, Cognitive, Emotional, Moral)	Items (how scaled)	Administration (who rates it)	Studies using measure
Interpersonal Reactivity Index	Cognitive	28 items	Self-rating	Davis 1980
	Emotional	5-point Likert Scale (0-4), 4 subscales		
Jefferson Scale of Physician Empathy	Cognitive	20 items 7-point Likert scale (1-7)	Self-rating	Hojat et al. 2001
Maslach Burnout Inventory (MBI)	Behavioral	21 items	Self-rating	Italia, Favara-Scacco, Di Cataldo, Russo — 2008
	Emotional	5-point Likert Scale (1-5)		Tjasink, Carr, Bassett, Soosaipillai, Ougrin, Priebe — 2023/2024
GAD-7	Behavioral	7 items	Self-rating	Tjasink, Carr, Bassett, Soosaipillai, Ougrin, Priebe — 2023/2024
	Emotional	4-point frequency scale (0-3)	Clinical rating	
PHQ-8	Behavioral	8 items	Self-rating	Tjasink, Carr, Bassett, Soosaipillai, Ougrin, Priebe — 2023/2024
	Emotional	4-point frequency scale (0-3)	Clinical rating	

Discussion

- Arts-based interventions improve empathy, observation, communication, and reflective practice in healthcare workers.
- Evidence is limited for direct burnout reduction since most studies examined short-term outcomes.
- Moreover, burnout may precede declines in empathy, and there are limited empathy-focused interventions alone.
- Resilience and mindfulness programs show stronger evidence in improving provider wellbeing, but these interventions primarily target individual-level factors.
- Comprehensive management of provider burnout requires addressing system-level factors such as improving workload, workflow, and workplace culture.
- Of note, interpretation of arts-based interventions is limited by heterogenous studies with inconsistent quantitative measuring tools. However, conventional biomedical hierarchies of evidence are poorly suited to capturing the qualitative nuances of reflective capacity, perspective-taking, and professional identity formation. Therefore, arts-based training should be evaluated using mixed-methods and qualitative approaches.
- Overall, arts-based interventions are a valuable adjunct for health profession wellbeing and education, but insufficient alone for addressing burnout.

Next Steps

- Further rigorous evaluations of arts-based interventions, such as VTS programs, are needed to clarify the effects of creative practices on burnout, clinical skills, patient care, and clinical outcomes.

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