

Short Communication



Humanistic translation in medical education: Bridging science, culture, and compassion for future physicians

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Abstract**Background:** The integration of medical humanities into medical education is essential for cultivating compassionate, reflective, and culturally competent physicians capable of addressing the complexities of modern healthcare**Methods:** This article reviews global trends in incorporating humanities into medical curricula, examining their role in fostering empathy, ethical reasoning, communication skills, and professional identity formation. It critically analyzes current curricular frameworks and the challenges posed by inconsistent implementation and lack of standardization.**Results:** Medical humanities contribute to epistemological multicompetence by exposing students early to diverse disciplinary perspectives, thus nurturing sustained humanistic values. However, integration is inconsistent and hindered by limited standardized frameworks, affecting its full potential. Effective curricular models are those that are flexible, empirically informed, and adaptable to local contexts while still enabling global comparability and systematic evaluation. The analysis highlights the necessity of a translational medical humanities approach that addresses cultural, symbolic, and interpretive dimensions of healthcare knowledge, enhances shared meaning-making between patients and providers, and supports health literacy. Student feedback generally supports humanities inclusion for empathy and holistic understanding, though curricular engagement and assessment strategies remain critical.**Conclusion:** Embedding medical humanities alongside biomedical sciences enriches medical education by preparing clinicians equipped to address complex social, cultural, and ethical challenges in healthcare. A nuanced, interdisciplinary approach to knowledge translation ensures the preservation of patient narratives and fosters ethical, equitable care—imperative in the digital health era. This integrated education model ultimately promotes patient-centered care and improved global health outcomes.**Viewpoint**

The integration of medical humanities into medical education represents a critical evolution in training healthcare professionals who are not only scientifically competent but also deeply attuned to the cultural, ethical, and human dimensions of care. Globally, the medical humanities aim to foster professionalism through reflective practice, emotional development, and empathy, addressing the urgent need to cultivate compassionate clinicians capable of navigating the complexities of modern healthcare systems.¹ This integration employs creative arts and narrative methods to deepen students' understanding of the clinical encounter, promoting social accountability and sensitivity to power dynamics, and aligning with problem-based learning curricula to encourage critical reflection and patient-centered care.¹

Despite longstanding recognition of their importance, medical humanities remain inconsistently included and

poorly standardized across medical curricula worldwide, with varied definitions and limited robust evidence on their long-term benefits, such as empathy enhancement, tolerance for ambiguity, and burnout reduction.² This inconsistency underscores the urgent need for standardized curricula, clear guidelines, and effective assessment methods to better incorporate humanities into medical training and cultivate well-rounded, reflective healthcare professionals.² The humanities provide a vital interdisciplinary space where medicine and cultural, historical, and philosophical insights mutually inform each other, challenging the reductive biomedical focus and enriching professional identity formation.³

Engagement with communities is essential in translational research and medical education, particularly in the era of big health data, where co-production and ethical partnerships with communities enhance research

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relevance, trust, and social value.⁴ This collaborative ethos extends to medical humanities, where students' experiences reveal that humanities curricula foster empathy, ethical reflection, and a broader appreciation of healthcare's social and cultural facets, enriching professional development beyond biomedical knowledge alone.⁵ Early exposure to arts and humanities at the pre-professional level cultivates "epistemological multicompetence," enabling students to navigate and advocate for multiple disciplinary perspectives and fostering sustained engagement with the humanities throughout their careers.⁶

However, the evaluation of health humanities curricula reveals significant gaps in consistency and clarity of learning outcomes, which hampers meaningful comparison and systematic assessment internationally. Developing a flexible, empirically grounded framework of core capabilities—such as perspective-taking, reflexivity, and person-centered communication—that respects local cultural contexts while fostering global comparability is critical for advancing health humanities education.⁷ Such frameworks would align with higher-order educational goals, including critical analysis, integration of knowledge, and behavioural change, preparing health professionals for complex, patient-centered care in diverse and rapidly changing environments.⁷

A fundamental challenge lies in rethinking knowledge translation (KT) in medicine. Traditional KT models view translation as a linear, unidirectional process aimed at preserving biomedical knowledge intact when applied in practice. In contrast, humanistic and historical perspectives emphasize translation as a dynamic, interpretive process involving transformation, negotiation, and cultural entanglement. Recognizing clinical encounters as cultural crossings, where biomedical phenomena and lived healing experiences intersect, demands a redefinition of evidence and knowledge in medicine, integrating biocultural realities into healthcare practice and research.^{8,9} This expanded model of medical translation has profound implications for improving healthcare delivery, policy, and global health governance.⁸

The future of translational medical humanities also involves bridging the divide between quantitative data and qualitative narrative, a gap starkly highlighted by the COVID-19 pandemic.¹⁰ Digital health data often reduces patients' complex lived experiences to fragmented data points, risking dehumanization. Integrative methodologies that combine digital technologies with humanistic approaches can preserve patient narratives within digital systems, fostering more holistic, ethical, and equitable healthcare. Such approaches enhance public trust, improve health communication, and support preparedness for future health crises by reconciling data-driven and narrative-based knowledge.¹⁰

In clinical practice, sustainable KT and health literacy depend on shared meaning-making between patients and providers.¹¹ Health outcomes are not solely biological

but biocultural phenomena shaped by patients' values, experiences, and life contexts.¹¹ Effective patient education requires co-created understanding tailored to individual circumstances, challenging the traditional biomedical-cultural divide and promoting iterative, personalized healthcare interactions.¹¹ This perspective underscores the importance of the humanities in fostering communication skills and cultural sensitivity essential for patient-centered care.

Medical students generally support increased inclusion of the humanities in their education, especially in early years, valuing the humanities for developing empathy, communication, and holistic patient understanding.¹² However, there is debate over whether humanities should be elective or mandatory, and students prefer that humanities courses not be formally assessed to maintain intrinsic motivation and engagement.¹² Involving students in curriculum design enhances relevance and learning outcomes, underscoring the need for thoughtful curricular positioning and clear articulation of humanities' benefits.

The humanities enrich medical education by fostering empathy, ethical reasoning, communication skills, and reflective practice, addressing the limitations of a purely biomedical approach.¹³ They prepare future physicians to navigate the social and cultural contexts of health and illness with sensitivity and professionalism.³ Despite challenges in defining medical humanities universally, their integration is vital for producing well-rounded clinicians capable of delivering compassionate, patient-centered care in diverse social environments. Embedding humanities alongside biomedical sciences cultivates empathy, compassion, altruism, and cultural awareness, which are fundamental for holistic healthcare and improving health service standards.¹³

Conclusion

In conclusion, the humanistic translation of medical education essentials involves a paradigm shift from viewing medical knowledge as purely scientific data to embracing it as culturally embedded, interpretive, and relational. This shift requires standardized, flexible humanities curricula, community engagement, and integrative translational models that honour both quantitative and narrative knowledge. By fostering empathy, ethical reflection, and cultural competence, the medical humanities transform medical education and practice, preparing physicians to meet the complex demands of 21st-century healthcare with compassion and critical insight.

Competing Interests

The author declares no competing interest.

Ethical Approval

Ethical approval was not obtained and is not applicable for this study.

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