DOI: https://doi.org/10.4038/jmj.v36i1.202

Dr Nadarajah Sivarajah Memorial Lecture

Arts and Humanities in Medical Education: Current and Future

[1]Saroj Jayasinghe

[1]Emeritus Professor of Medicine, Founder Head, Department of Medical Humanities, University of Colombo

Modern medical education is facing several concurrent crises. The post-Covid era has shown growing reliance on remote learning, significant globalization of education, and unprecedented acceleration in the use of artificial intelligence in health and education. Despite these rapid changes in healthcare and education technologies, there persists a long-standing concern that medical education and training are associated with a decline in humane values and behaviours (1,2,3).

The primary humane attributes that have been described in medical education include altruism, empathy, and compassion, a spectrum of connected mental states or emotions that relate to understanding and responding to another's feelings. Compassion is a feeling that arises when witnessing another's suffering and motivates a desire to help, while empathy, is experiencing another's feelings, and sympathy is a feeling of sorrow and concern for another's pain or suffering (4,5,6). Altruism, in contrast, denotes an attitude of caring about others and helping them without expecting anything in return (7).

Measuring compassion and altruism is difficult, and most research is on empathy in medical education. The subsequent section of the article attempts to address a series of questions aimed to explore the current role of humanities in promoting humane attributes in health professionals, and potential future directions useful to medical schools.

Are humane attributes such as compassion and empathy necessary for health professionals?

There is compelling evidence highlighting the significance of compassion and empathy in clinical care. Patients consistently emphasize kindness as a crucial trait they prefer to see in doctors. Empirical studies have demonstrated that empathy yields improved diagnostic accuracy, enhanced drug compliance, and better health outcomes. Research also points to a troubling trend: a rapid decline in empathy observed during undergraduate medical courses (1,2,3). Therefore, medical educators need to take corrective action, at least, to reverse this trend of creating less compassionate healthcare workers!

A complicating factor is the emergence of Artificial Intelligence (AI) which is increasingly assuming a central role in healthcare. As AI has the potential to replace much of the technical expertise provided by human health workers, the importance of humane values and human skills will only intensify. Therefore, the cultivation of humane attributes such as compassion and empathy will become increasingly crucial.

Can empathy and compassion be developed or nurtured?

Research indicates that cultivating these qualities is indeed feasible, and universities like Stanford offer courses on nurturing compassion. Factors such as supportive work environments, the availability of positive role models, and engagement in reflective practices all play significant roles in fostering their development.

Figure 1 gives the Faculty of Medicine, University of Colombo Model to promote the growth of a more humane health professional (8). It shows the roles played by several interventions in the curriculum that could foster compassion in the learner.

- Narrative-Based Learning: Provides insight into the human dimension of illness. Patient narratives are commonly used as a trigger for discussions. Often, these highlight socio-economic, cultural or biographical aspects of a patient's life and help to understand the impact of illness on his/her life (9,10).

Emotional Intelligence: Enhances understanding of both others' and one's own emotions (11). Mindfulness and Meditation: Encourages introspection and self-reflection (12).

Corresponding author: Saroj Jayasinghe , email: saroj@clinmed.cmb.ac.lk, https://orcid.org/0000-0003-1460-6073, Submitted November 2023, Accepted March 2024

Religion: Spirituality and religion shapes compassionate behaviours through their narratives and teachings by religious leaders. The Arts and Humanities: Increasingly utilized to foster empathy and compassion in healthcare professionals (13, 14).

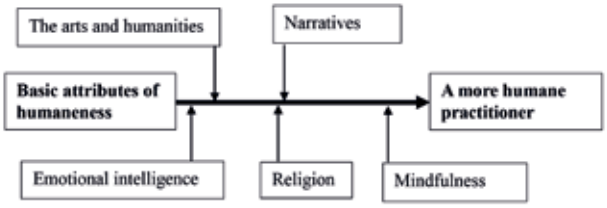

Figure 1: The Colombo Model of Developing a More Humane Health Professional

Is there a role for the arts and humanities to foster compassion in healthcare professionals?

Evidence suggests that exposure to the arts and humanities during medical education and training effectively shapes empathetic and compassionate physicians (13, 14). The phrase 'the arts and humanities' is used here to primarily encompass three major art forms: visual arts (e.g., painting, drawings, sculpture), literature (e.g. novels, short stories, poetry, story-telling), and performance arts (drama, cinema, dance). In contrast, medical humanities is an interdisciplinary field that integrates disciplines such as art, creative writing, drama, and anthropology into medical education and offers various strategies to enhance empathy and compassion (15, 16).

Role of the arts and humanities: International and regional experiences

In a recent scoping review, we delved into the role of the arts in medical education across the globe with a focus on the South-East Asia Region. Our findings revealed a diversity of artistic mediums being integrated into Medical Humanities courses. Table 1 a few examples drawn from the literature.

Lessons from The Colombo Experience (25)

In 1995, the Faculty of Medicine at the University of Colombo embarked on a significant curriculum reform and pioneered an integrated modular system with a longitudinal focus on Behavioural Sciences. This initiative, coordinated by the Behavioural Sciences Stream (BSS), and now known as the Humanities, Society, and Professionalism Stream (HSPS), emphasized topics such as personal development, communication skills, medical ethics, health management, and professionalism.

Table 1: Examples from literature

Art Form	Activities in the Curriculum
Visual art	Visual art is used to improve observational skills and promote empathy. Visual Thinking Strategy is one such approach. which is used to think more critically and systematically about images, based around 3 open-ended questions (17).
Creative writing and poetry	Students write, share, recite and discuss creative stories or poems written about their impactful experiences (18).
Story Telling	Through first-hand experiences, storytelling facilitates understanding of different perspectives of people and professionals (19). For example, stories on experienced of visible and/or invisible disabilities and their caregivers.
Theatre	Forum Theatre is a large group session which is participatory, in which a short scene is performed showing a moment of oppression or discrimination. The spectators interject and become the actors taking a role and show how they would change the dialogue/script (i.e. face the oppression) and have a different (better) outcome (20,21).
Films	Trigger Films use brief (3–10 min) movie clips to trigger debate and reflection, and help students address issues such as ethical dilemmas (22).
Literature	Read and discuss fiction and nonfiction literature that informs patient perceptions, socio-cultural contexts, and clinical practice (23).
Dance and movement	Students engage in dance and movement exercises and use them to express emotion and reduce stress (24).

Initially, artistic endeavours were primarily confined to extracurricular activities, such as concerts, art festivals, photography exhibitions, and musical events organized by students. However, in 2012, a subtle yet significant shift occurred with the introduction of the first formal lecture on "Illness from the Perspective of Humanities." Subsequent curriculum workshops emphasized the importance of enhancing the educational input from humanities, supported by research indicating that the arts fostered compassion and empathy in students. Since 2015, a few students have opted to do an art-related topic during their 4-week elective.

This momentum culminated in a milestone achievement in August 2016 with the official establishment of the Department of Medical Humanities. This was a significant achievement because it was the first department of its kind in Sri Lanka and possibly the entire region. The department organized expert-led lecture discussions to delve into the role of humanities in healthcare. This initiative paved the way for the inaugural International Conference on Medical Humanities in 2018, themed "Learning to be more humane: The Role of Medical Humanities." Notably, a half-day workshop on "Arts in Health Professional Education" which enriched , discussions on the intersection of art and health.

Insights gleaned from these activities were utilized in designing an innovative curriculum to promote humaneness and a person-centered approach to clinical practice. This curriculum incorporates a diverse range of educational strategies, including reflections on patient narratives, critique of short stories, discussions on poetry, large-group lectures on the neurophysiology of compassion and empathy, and student seminars reflecting on observations of kind and unkind behaviours in hospitals.

Amidst the challenges posed by the COVID-19 pandemic in 2021, the HSPS and the Department introduced an interactive series titled *Humanitas.* This initiative exploring contemporary health-related issues that are relevant to students, fostering transformative learning using the arts in an interactive manner has become the flagship program of the Department. Topics range from those addressing the plight of garment factory workers to LGBTQI to heartbreak.

Conclusions

Jaffna boasts a rich legacy of compassionate health professionals who dedicated their lives to serve suffering humans during tumultuous times of armed conflict. The university has been fortunate to have nurtured several such compassionate academic-health practitioners. The invaluable lessons in humaneness imparted by these individuals must be continued to inspire and guide future generations of health professionals. The University of Jaffna is presThis paper is based on the Dr. Nadarajah Sivarajah Memorial Lecture, delivered by the author at the Faculty of Medicine, University of Jaffna on 6th March 2024. It was held to commemorate the work of Dr. Nadarajah Sivarajah, an exemplary humane and compassionate academic community physician, from the Department of Community Medicine, University of Jaffna (26). His altruistic attitude and willingness to sacrifice his personal safety helped draw attention to the plight of malnourished children, maintain essential preventive services (such as vaccination of children) and establishment of an emergency ambulance service during an intensely violent conflict. Some of the established survive to this day: addressing the needs of the differently abled through the Association for Health Education and Development Trust (AHEAD Trust: https://www.aheadjaffna.org/about-us/), and a hospice through CAncer control North East, financed and helped by CANE UK, a charity (CANE): https://caneuk.org/jaffna-hospice/.

References:

1. Jones R. Declining altruism in medicine. BMJ. 2002 Mar 16;324(7338):624-5. : 10.1136/bmj.324.7338.62
2. Neumann M, Edelhäuser F, Tauschel D, et al. Empathy decline and its reasons: a systematic review of studies with medical students and residents. Academic Medicine. 2011;86(8):996-1009.
3. Newton BW, Barber L, Clardy J, Cleveland E, O'Sullivan P. Is there hardening of the heart during medical school? Academic Medicine. 2008; 83(3):244-249.
4. Singer, T,. Klimecki, OM, Empathy and compassion, Current Biology, 2014; 24 (18): R875-R878. DOI: 10.1016/j.cub.2014.06.054
5. Jayasinghe, S., Integrating compassion to clinical care: a review of an emerging 'science'. Ceylon Journal of Medical Science, 2017:54(1);3-8.

   DOI: 10.4038/cjms.v54i1.4822
6. Dohrenwend, Anne M. PhD. Defining Empathy to Better Teach, Measure, and Understand Its Impact. Academic Medicine 93(12):p 1754-1756, December 2018. | DOI: 10.1097/ACM.0000000000002427
7. Arman M. Empathy, sympathy, and altruism—An evident triad based on compassion. A theoretical model for caring. Scand J Caring Sci. 2023; 37: 862–871. DOI: 10.1111/scs.13163

8. Jayasinghe, S, de Abrew A, Amarasuriya, S, Fernando, S, Gunathilake, K Karunanayake, P, Rajasuriya, M. A Primer for Undergraduate Courses in Medical Humanities and Professionalism. Second Edition. 2023. Author publication

9. Childress, A, Lee PE, Toussant, R et al., Using Narrative Medicine workshops to improve empathy and emotional intelligence and address burnout among medical students. Academic Medicine 2022;97(11S):S120

10. DOI: 10.1097/ACM.0000000000004863

11. Impact of a narrative medicine programme on healthcare providers' empathy scores over time BMC Medical Education 2017;17(1):108

12. Emotional Intelligence, Goleman. D. Anniversary Edition. 2006, Bantam; London.

13. Mindfulness increases pro-social responses toward ostracized strangers through empathic concern. J Exp Psychol General. 2018;147:93-112

14. Chisolm MS & Bhugra D. The arts and humanities are fundamental to health professions education, International Review of Psychiatry, 2023; 35:7-8, 537-539, DOI: 10.1080/09540261.2023.2321034

15. Howley L, Gaufberg E, King B. The Fundamental Role of the Arts and Humanities in Medical Education. Washington, DC: Association of American Medical Colleges 2020.

16. Hegde S. Music therapy for mental disorder and mental health: the untapped potential of Indian classical music. British Journal of Psychiatry International. 2017;14(2):31-33.

17. van der Steen JT, van Soest-Poortvliet MC, van der Wouden JC, Bruinsma MS, Scholten RJ, Vink AC. Music-based therapeutic interventions for people with dementia. Cochrane Database Systematic Reviews. 2017;5:CD003477.

18. Cerqueira, A.R., Alves, A.S., Monteiro-Soares, M. et al. Visual Thinking Strategies in medical education: a systematic review. BMC Medical Education 2023;23:536. DOI: 10.1186/s12909-023-04470-3:

19. Joshi, A, Paralikar, S, Kataria, S, Kalra, J, Harkunni S, & Singh T. Poetry in medicine: a pedagogical tool to foster empathy among medical students and health care professionals, Journal of Poetry Therapy, 2022;35(2):85-97, DOI: 10.1080/08893675.2022.2043119

20. Liao HC, Wang YH. Storytelling in Medical Education: Narrative Medicine as a resource for interdisciplinary collaboration. Int J Environ Res Public Health. 2020;17(4):1135. DOI: 10.3390/ijerph17041135.

21. Gupta S, Agrawal A, Singh S, Singh N. Theatre of the Oppressed in medical humanities education: the road less travelled. Indian J Med Ethics. 2013 Jul-Sep;10(3):200-3. DOI: 10.20529/IJME.2013.059.

22. Shankar PR. A three-day workshop on the theatre of the oppressed in a Nepalese medical school. AMJ 2012, 5, 8, 440- 442. DOI: 10.21767/AMJ.2012.1351

23. Gangwani N, Singh S, Khaliq F. Trigger films to teach core competencies of ethics and professionalism to first-year medical and nursing students. Adv Physiol Educ. 2022;46(3):491-497. doi: 10.1152/advan.00041.2022.

24. DMani SS. Literary appreciation for medical students at International Medical University, Kuala Lumpur: the learner's experience Medical Humanities 2008;34:88-92.

25. Basso JC, Satyal MK, Rugh R. Dance on the brain: Enhancing intra- and inter-brain synchrony. Frontiers in Human Neuroscience. 2021;14:584312

26. Jayasinghe S, Fernando S. Developments in medical humanities in Sri Lanka: A call for regional and global action. TAPS 2023;8(4): 1-4 DOI: 10.29060/TAPS.2023-8-4/GP2878

27. Sivarajah M. Fourth Year Memorial Publication of Late Dr. Nadarajah Sivarajah.. Kumanan Book House 2023.