

Integrating compassion to clinical care: a review of an emerging 'science'

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Abstract

Sympathy, empathy and compassion are a family of connected mental states or emotions that relate to understanding and responding to another's feelings. Compassion can be defined as a feeling that arises when witnessing another's suffering, and motivates a desire to help. It differs from empathy, which is experiencing another's feelings, and sympathy (a feeling of sorrow and concern to another's pain or suffering).

There is a public demand for health workers to demonstrate more compassion. This is reflected in compassion being stressed in mission statements of health institutions, and in the goals of regulatory organizations and medical councils. Increasingly, compassion and technical competence are both considered as integral elements of quality care. Despite their acknowledged importance in health care, empathy and compassion are rarely researched or taught explicitly.

Measuring compassion is difficult and there is a need for psychometrically validated instruments. As a result, most research is on empathy. Empathy improves diagnostic accuracy, patient satisfaction, drug compliance, and lead to better outcomes (e.g. improved glycaemic control in patients with diabetes). Studies have found a rapid decline in empathy during the undergraduate medical course, believed to be due to poor role models, students experiencing harassments by senior staff, confronting clinical realities that counter student idealism, higher workload, and poor psychosocial support. Facing distressing situations with little support leads to empathic distress. The intensity of the latter is reduced by functioning as teams, listening to each other's concerns non-judgementally, self-reflection to understand one's own emotional reactions and cultivation of self-compassion. Skills of self-compassion and compassion towards others may be learnt through contemplative approaches and certain religious meditation techniques (e.g. 'Metta' meditation in Buddhism). Sri Lanka could also draw on these indigenous cultural and religious practices and take a lead role globally in the emerging interdisciplinary 'science' of compassion and health.

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Sympathy, empathy and compassion are conceptualized to be a family of connected mental states or emotions. They all relate to understanding and responding to another's feelings. A simple, yet useful definition of compassion is that it is a feeling that arises in an individual who witnesses another's suffering and is motivated to help [1]. There are other definitions especially in the context of compassion - based therapies in psychology. In



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Compassion-Focused Therapy (CFT), it is defined as sensitivity to the distress or suffering that is experienced by self as well as others, with a motivation or commitment to try to alleviate and prevent it [2]. In the Stanford Compassion Cultivation Training Programme, compassion is defined as a construct that has the following four components: (a) Cognitive (an awareness of suffering); (b) Affective (emotionally moved by suffering); (c) Intention (a wish to relieve that suffering) and; (d) Motivation (a readiness to help relieve that suffering) [3].

Compassion differs from empathy, which is the emotion of experiencing another's pain, happiness or feelings (i.e. to be in another's shoes). In empathy, the 'perceiver' has the same emotion he or she observes in another person [4]. Furthermore, the former is aware that the source of his or her experience is the other's emotion. In contrast, sympathy is an intense feeling of a person's pain or an emotional reaction to another's pain or suffering. It has feelings of sorrow and concern [5].

The importance of compassion in the health profession is highlighted by diverse sources. Mission statements or goals of educational institutions invariably include a statement on compassion or empathy (e.g. the mission statement of the Faculty of Medicine, Colombo). Regulatory organizations and medical councils in many countries explicitly mention it as a value of importance. For example, the Australian Code of Conduct on Good Medical Practice states: "A good doctor-patient partnership requires high standards of professional conduct. This involves being courteous, respectful, compassionate and honest" [6]. The Royal College of Physicians calls on doctors to "display compassion in their daily work" and the Future Hospital Commission has dedicated a chapter to 'building a culture of compassion and respect' [7,8]. Unfortunately, a search of the words 'compassion' or 'empathy' on the website of the Sri Lanka Medical Council failed to elicit a single entry (accessed on 1 February 2017, <http://www.srilankamedicalcouncil.org/>).

The demand for compassion by the Sri Lankan public is highlighted by numerous complaints of failures in compassionate care, voiced in the media. We are not alone in having such unfortunate failures in compassionate care. For example, in the United Kingdom, a report by the Health Services Ombudsman noted several failures in responding with compassionate care towards elderly and frail patients [9]. In the religious arena, compassion is often considered a value and noble virtue, promoted

by almost all the major world religions [10]. Well-known global leaders of compassion-based approaches to solve complex international political issues include Mahatma Gandhi and His Holiness the Dalai Lama.

Some clinicians have argued that it is preferable to be competent than compassionate. However, there is an emerging view that compassion is an inseparable and central quality in health care [11]. Health professionals should be both compassionate **and** competent, rather than competent **or** compassionate [12]. Though their importance is well recognized in healthcare, topics such as empathy and compassion are rarely taught explicitly to students in healthcare disciplines, almost never promoted as a modality of therapy and hardly-ever researched.

The next few paragraphs outline the neurological basis of compassion, its relevance in therapy and its implications to medical education.

Neurological basis of compassion

The neurological basis of empathy and compassion has been explored using imaging techniques such as functional MRI (fMRI). A common technique is to measure brain activity in subjects while they watch different combinations of video clips under laboratory conditions: e.g. actors describing neutral or sad personal stories, accompanied by sad and happy facial expressions; subjects imitating different emotional facial expressions or merely observing such a picture; and subjects viewing videos with faces expressing disgust or pleasure, while experiencing unpleasant or pleasant odours [13]. Meta-analyses consistently show that during the experience of pain or when feeling the suffering of others (i.e. an empathic response) the sites of activations are parts of the anterior insula and a specific area of the anterior cingulate cortex [14]. Other researchers have investigated changes in fMRI when compassion is evoked. This is done by requesting participants to self-generate a feeling of unconditional love towards unfamiliar individuals with obvious intellectual disabilities [15]. In contrast to empathy, feelings of compassion trigger neuronal activity in different areas of the brain such as the insula, the ventral striatum and the medial orbitofrontal cortex.

Compassion in illness and health

The effects of compassion in psychology and psychiatry are well known [16]. A recent review evaluated eight compassion-based interventions

(e.g. Compassion-Focused Therapy, Cognitively Based Compassion Training etc.) and found that six interventions have randomized clinical trials to support their effectiveness in improving compassion and relieving anxiety [16]. Its impact on physical illness is less well documented and could be mediated through psychological pathways e.g. adding a segment on compassionate behaviour to a dramatized consultation between an oncologist and a breast cancer patient, reduced anxiety in the observer [17].

In contrast to compassion, there is more experimental evidence on the impact of empathy on diseases. It is known to improve diagnostic accuracy, patient satisfaction and compliance [18,19]. There are studies showing better outcomes (e.g. reducing patient anxiety, enhanced patient satisfaction and improved glycaemic control in patients with diabetes) when cared for by more empathic clinicians [20,21].

Studies on meditation provide some indirect evidence of favourable impacts of empathy and compassion on disease progression. Under experimental conditions, a range of meditation techniques has been shown to promote compassion [22]. An eight-week mindfulness-based stress-reduction programme was found to result in a significant improvement in quality of life measures and longer duration of sleep in renal transplant recipients [23]. The beneficial effects of meditation include improvement of immune parameters in patients with breast and prostate cancer and slowing the decline of CD-4 T-lymphocytes in patients with HIV [24]. A recent small study has shown that 'walking meditation' improved glycaemic control assessed using HbA1c, blood pressure and blood cortisol levels [25,26].

An emerging hypothesis is whether epigenetic mechanisms mediate improvement in health or recovery from illness observed with compassionate care. Compassionate care could be improving health outcomes through epigenetic mechanisms. One piece of evidence is the positive correlation described between meditation forms that promote compassion and longer telomeres (which is an indirect measure of slower ageing) [27]. Similar associations have been found using telomerase activity [28].

Measuring compassion in health care

There have been several attempts to measure compassion in the healthcare setting. A recent systematic review found the need for

psychometrically validated instruments in different healthcare settings [29]. Tools that were reviewed include the Compassionate Care Assessment Tool (CCAT) used to evaluate compassionate nursing care in acute hospital environments, the Schwartz Center Compassionate Care Scale™ to measure patient perceptions of care provided by attending physician and the Compassion Competence Scale to assess competency in compassion [30,31,32]. In contrast, scales of empathy are more frequently used in healthcare settings. A review published in 2007 found eight valid and reliable instruments of which only one was rated by patients [33]. A well-known example is the Jefferson Scale of Empathy [34,35]. Studies have also commenced in Sri Lanka to define and develop measures of empathy among practitioners.

Implications for medical education and training

The author could not access any rigorous longitudinal studies that explore the progress or decline in compassion during medical education or professionalization. In contrast, there is research showing rapid declines in empathy during undergraduate medical education [36,37]. This decline is believed to be due to poor role models and students themselves experiencing harassment by more senior staff, confronting clinical realities that counter student idealism, and a high workload.

Decline in empathy could also be due to the lack of self-awareness of emotions at times of distress and poor psycho-social support. Some readers may recall their own experiences as novice intern medical officers, when for the first time in their careers they were required to take care of a dying patient directly and his or her distressed relatives. Our emotions during such an event were often a mix of sadness and a sense of failure and helplessness. This was often combined with 'empathic distress', i.e. emotional distress felt by mirroring what the patient or relatives were experiencing: Watching a mother cry about a seriously ill child may evoke a distressing emotion in which you imagine what you would feel if you were that parent. A common response and advice given to cope with such distress are captured by the belief that "health professionals should learn to separate their emotions from their professional work". Unfortunately, such advice promotes an aversion to the suffering of others, accompanied by the desire to withdraw from distressing situations in order to protect oneself from excessive negative feelings or emotional pain, i.e. a decline in empathic behaviour.

One simple measure to overcome empathic distress (and other emotions of failure and helplessness) is to function as a team and share distressing (and happy) emotions with colleagues. Non-judgemental listening to each other's sadness tends to alleviate distress. The second measure is to reduce the intensity of empathic distress. One could self-reflect and understand one's own emotional reaction non-judgementally and help the patient or the relatives alleviate their distress. It is an attempt to switch towards more action to alleviate suffering (rather than ruminating on their suffering), while acknowledging their pain and distress. This pro-social motivation to help is a feature of compassion [13]. This is supported by neuro-imaging studies that show empathy and compassion activating different networks in the brain [15]. In other words, compassionate care may help to overcome empathic distress.

The third measure is to cultivate self-compassion. Studies on psychological therapists have found that providing compassionate care to others in the absence of self-compassion, leads to increased stress and burnout [38]. Such studies demonstrate the need to learn skills of self-compassion as well as 'external' compassion (i.e. compassion towards others). Imparting these skills is feasible through training programmes such as Compassionate Mind Training that use contemplative approaches [38]. Compassion also appears to improve with meditation-related techniques such as 'loving kindness training', a mental practice carried out in silence that focuses on the cultivation of friendliness towards a series of imagined persons [39]. Though these are secular forms of interventions, religious traditions and meditation techniques (e.g. Metta meditation in Buddhism) are believed to inculcate compassion into the daily lives of practitioners.

Conclusion

Compassion is increasingly recognized as a central feature of health and healthcare. It has beneficial effects on wellbeing and the potential to alleviate suffering in psychological and physical disorders. These findings are supported to some extent by advanced neuro-imaging techniques. Mindfulness and secular or religious forms of meditation are two approaches that may enhance compassion. Further studies are required to identify and develop methods that quantify and promote compassion in the healthcare profession. We need to explore and implement methods of incorporating empathy and compassion into curricula, clinical training and professionalization. Sri Lanka could also draw on

its indigenous cultural and religious practices and take a lead role globally in the emerging interdisciplinary 'science' of compassion and health.

References

1. Goetz JL, Keltner D and Simon-Thomas E. Compassion: An Evolutionary Analysis and Empirical Review. *Psychol Bull*2010;136:351–374.
2. Gilbert P. The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, 2014;53:6–41.
3. Jinpa T. (2010). Compassion cultivation training (CCT): Instructor's manual. Unpublished, Stanford, CA quoted in Jazaieri H., Jinpa T., McGonigal K.,*et al.* Enhancing compassion: A randomized controlled trial of a compassion cultivation Training program. *Happiness Stud*2013;14:1113–1126.
4. De Vignemont F., Singer T. The empathic brain: how, when and why? *Trends Cogn Sci*2006;10:435-441.
5. Eisenberg N., Fabes R. A., Murphy B.,*et al.* The relations of emotionality and regulation to dispositional and situational empathy-related responding. *JPSP*1994; 66: 776–797.
6. Good Medical Practice: A Code of Conduct for Doctors in Australia. Medical Board of Australia. 2014.
7. Royal College of Physicians. Doctors in society: medical professionalism in a changing world. Report of a Working Party of the Royal, College of Physicians of London. London: RCP, 2005
8. Future hospital: caring for medical patients. A report from the Future Hospital Commission to the Royal College of Physicians. London: Royal College of Physicians, 2013.
9. Health Service Commissioner for England. Care and compassion? Report of the Health Service Ombudsman on ten investigations into NHS care of older people. London: The Stationary Office, 2011.
10. Balslev A., & Evers, D. Compassion in the world's religions: Envisioning human solidarity. Berlin: Lit Verlag, 2011.
11. Ekstrom LW. Liars, medicine, and compassion. *Journal of Medicine and Philosophy*. 2012;37:159-180.
12. Gillon A. Restoring humanity in health and social care- Some suggestions. *Clinical Ethics*. 2013;8:105-110.

13. Singer T, Seymour B, O'Doherty J, Kaube H, Dolan RJ, Frith CD. Empathy for pain involves the affective but not sensory components of pain. *Science* 2004;303:1157-1162.
14. Singer T, Klimecki OM. Empathy and compassion. *Current Biology* 2014;24:R875–R878.
15. Beauregard M, Courtemanche J, Paquette V, St-Pierre E.L. The neural basis of unconditional love. *Psychiatry Research* 2009;172, 93–98.
16. Kirby JN. Compassion interventions: The programmes, the evidence, and implications for research and practice. *Psychology and Psychotherapy: Theory, Research and Practice* 2016; doi:10.1111/papt.12104
17. Fogarty LA, Curbow BA, Wingard JR, McDonnell K, Somerfield MR. Can 40 seconds of compassion reduce patient anxiety? *JCO* 1999; 17(1): 371.
18. Kim SS, Kaplowitz S, Johnston MV. The effects of physician empathy on patient satisfaction and compliance. *Eval Health Prof.* 2004;27:237–251.
19. Neumann, Edelhäuser F, Tauschel D, *et al.* Empathy decline and its reasons: A systematic review of studies with medical students and residents. *Academic Medicine.* 2011;86:996-1009.
20. Derksen F, Bensing J, Lagro-Janssen A. Effectiveness of empathy in general practice: a systematic review. *BJGP* 2013;63:e76-e84. doi:10.3399/bjgp13X660814.
21. Hojat M, Louis DZ, Markham FW, Wender R, Rabinowitz C, Gonnella JS. Physicians' empathy and clinical outcomes for diabetic patients. *Academic Medicine* 2011;86:359–364
22. Fredrickson BL, Cohn MA, Coffey KA, Pek J, and Finkel SM. Open hearts build lives: positive emotions, induced through loving-kindness meditation, build consequential personal resources. *J. Perspectives in Social Psychology* 2008;95:1045–1062.
23. Kreitzer MJ, Gross CR, Ye X, Russas V, Treesak C. Longitudinal impact of mindfulness meditation on illness burden in solid-organ transplant recipients. *Progress in Transplantation.* 2005;15:166-72.
24. Creswell JD, Myers HF, Cole SW, Irwin MR. Mindfulness meditation training effects on CD4+ T lymphocytes in HIV-1 infected adults: A small randomized controlled trial. *Brain, Behavior, and Immunity.* 2009;23:184-188.
25. Gainey A, Himathongkam T, Tanaka H, Suksom D. Effect of Buddhist walking meditation on glycemic control and vascular function in patients with type 2 diabetes. *Complementary Therapies in Medicine.* 2106;26:92-97.
26. Carlson LE, Speca M, Patel KD, Goodey E. Mindfulness-based stress reduction in relation to quality of life, mood, symptoms of stress, and immune parameters in breast and prostate cancer outpatients. *Psychosomatic Medicine.* 2003;65:571-81.
27. Hoge EA, Chen MM, Orr E, *et al.* Loving-Kindness Meditation practice associated with longer telomeres in women. *Brain, Behavior, and Immunity,* 2013; 32:,159–163.
28. Schutte NS, Malouff JM. A meta-analytic review of the effects of mindfulness meditation on telomerase activity. *Psychoneuroendocrinology.* 2014;42:45-48.
29. Sinclair S, Russell LB, Hack TF, Kondejewski J, Sawatzky R. Measuring Compassion in Healthcare: A Comprehensive and Critical Review. *Patient.* 2016. doi:10.1007/s40271-016-0209-5
30. Burnell L, Agan D. Compassionate care can it be defined and measured? The development of the compassionate care assessment tool. *International Journal of Caring Sciences.* 2013;6:180–7.
31. Lown BA, Muncer SJ, Chadwick R. Can compassionate healthcare be measured? The Schwartz Center Compassionate Care Scale. *Patient Education and Counselling.* 2015;98:1005–1010.
32. Lee Y, Seomun G. Development and validation of an instrument to measure nurses' compassion competence. *Applied Nursing Research.* 2016;30:76–82.
33. Hemmeringer JM, Stoddart SDR and Lilford RJ. A systematic review of tests of empathy in medicine *BMC Medical Education* 2007, 7:24 doi:10.1186/1472-6920-7-24
34. Hojat M, Mangione S, Nasca TJ, *et al.* The Jefferson scale of empathy: development and preliminary psychometric data. *Educational and Psychological Measurement,* 2001;61:349–65.
35. Hojat M, Gonnella JS, Nasca TJ, Mangione S, Vergare M, Magee M, Physician empathy: definition, measurement and relationship to gender and specialty. *AJP* 2002;159:1563–1569
36. Hojat M, Vergare MJ, Maxwell K, *et al.* The devil is in the third year: A longitudinal study of erosion of empathy in medical school. *Academic Medicine,* 2009; 84: 1182-1191.
37. Neumann, Edelhäuser F, Tauschel D, *et al.* Empathy decline and its reasons: A systematic review of studies with medical students and residents. *Academic Medicine.* 2011;86:996-1009

38. Beaumont E, Martin CJH. A proposal to support student therapists to develop compassion for self and others through Compassionate Mind Training. *ART PSYCHOTHER* 2016;50:111–118.
39. Fredrickson BL, Cohn MA, Coffey KA, Pek J, Finkel SM. Open hearts build lives: positive emotions, induced through loving-kindness meditation, build consequential personal resources. *J. Perspectives in Social Psychology*. 2008;95:1045–1062.