* **Title: Poetry in medicine: A pedagogical tool to foster empathy among medical students and health care professionals**
* **Short Title: Poetry and empathy**
* **Authors:**

1.**Dr. Anuradha Joshi**

PhD (Pharmacology), ACME 2014 , FAIMER Fellow ( CMCLudhiana-2016)

Professor

Department of Pharmacology,

Pramukhswami Medical College,

Karamsad, Gujarat(India).

Email:annuradhaj7@gmail.com

2.**Dr. Swapnil Paralikar**

MD (Physiology), FAIMER Fellow (CMC Ludhiana-2015)

Assistant Professor,

Department of Physiology,

Government Medical College,

Bhavnagar, Gujarat (India)

E mail:[drsparalikar@gmail.com](mailto:drsparalikar@gmail.com)

* 3.**Dr. Juhi Kalra**

MD (Pharmacology), ACME, FAIMER Fellow (CMC Ludhiana-2015)

Professor and Head,

Department of Pharmacology,

Himalayan Institute of Medical Sciences (HIMS),

Dehradun, Uttarakhand (India)

E mail: [drjuhi9@gmail.com](mailto:drjuhi9@gmail.com)

4.**Shreya Kataria**

Second year MBBS

Pramukhswami Medical College,

Karamsad, Gujarat (India)

E mail:.[shreyakataria2000@gmail.com](mailto:shreyakataria2000@gmail.com)

5.**Pankti Pandya**

Final year MBBS

Pramukhswami Medical College

Karamsad, Gujarat (India)

E mail: [pankti42@gmail.com](mailto:pankti42@gmail.com)

6.**Dr. Sheetal Harakuni**

PGDHPE, ACME, MD (Microbiology )

Professor,

Department of Microbiology,

KLE College of Medicine,

Belgaum, Karnataka, (India)

E mail: [sheetalharakuni@gmail.com](mailto:sheetalharakuni@gmail.com)

7.**Dr. Tejinder Singh**

National Convenor, ACME

Professor of Pediatrics and Medical Education

SGRD Institute of Medical Sciences and Research

Amritsar, Punjab, India

Member Expert Group (MCI) Curriculum Implementation Support Program

MD, DNB, FIAP

M.Sc. Health Professions Educ (Maastricht Univ; Hons); MNAMS;

MA Distance Educ, PG Dip Higher Educ, PG Dip Human Resource Management; FAIMER Fellow (USA), International Fellow in Medical Education

FIMSA, SIDA Fellow

Dr. B C Roy National Awardee (Eminent Medical Teacher)

National Board of Examinations Awardee (Eminent NBE Alumnus)

Professor Emeritus, Medical Education, HIMS, Jolly Grant, Dehradun

Visiting Professor, Health Professions Education, KLE, Belgavi

Visiting Professor, Health Professions Education, MGM Deemed university

, (Navi Mumbai)

E mail: drtejinder22@gmail.com

* **A statement of competing interests and funding support.: NO COMPETEING INTERESE AND NO FUNDING**
* **A statement of any submissions of very similar work, with references to the previous submission if applicable.: THIS WORK HAS NOT BEEN SUBMITTED ANYWHERE**

**Abstract**

Throughout human history, poetry has enjoyed a coveted place at the high table amongst tools to communicate one’s feelings and even dictate magnanimous events. Now, poetry writing is considered a useful method to teach sophisticated affective skills. One such aspect is empathy, a fundamental pre-requisite for professional competence. Empathy has been found to plummet in medical students as they progress through the medical school. They are several reasons for this ill-timed decline in empathy. The current medical education lays emphasis on detachment and objective clinical reasoning. Coupled with this, medical students use lack of empathy as a defense mechanism to shield themselves from their patient’s sufferings. Several studies have revealed that targeted empathy training benefits medical students and health care professionals. Training in the early years of medical school enhances the behavioral aspect of empathy in medical students. Writing poetry on sentinel events in the wards and the students’ lives has been found to foster empathy. In addition, poetry writing can help develop critical thinking skills, lay the foundation for reflective practice and help crystallize complex concepts in memory. This article discusses the role of poetry as a tool to cultivate empathy among medical students and professionals, highlighting its additional advantages.

**Key words:** poetry; empathy; medical education; creative writing

**Origin of Poetry and its role in medical education**

The word Poetry basically comes from a variant of Greek term “Poiesis” i.e. “making”. A form of literature wherein  aesthetic and rhythmic qualities of language like “Phonesthetics, sound symbolism and metre” are used to evoke meaning and emotions [1]. Though it is a challenging task to discover the origin of poetry, history reveals poetry as one of the most communicative mode to express ones feelings and dictate magnanimous events. In addition, it has been a part of curriculum in primary and secondary education since years [2,3]. Serious poetry though is a vocabulary feast, verse poetry is the one accepted and practiced by teachers and students. Among the many advantages of poetry, poetry seems to be an easy way to teach sophisticated affective skills .It is known to enhance not only the rich vocabulary in a language but assures all-round communicative skill development and analytical skills [4]. It honors affective intelligence, facilitates creativity, creative writing, reflective skills and above all deepens the understanding of empathy.

Innumerable physician poets have utilized poetry in medicine e.g. Johann Christoph Friedrich Von Schiller (1759-1805) a German physician, philosopher and a poet known for utilizing his literary works on ethics and aesthetics. John Keats (1795-1821) had an early interest in literature. Yet he was, surprisingly, apprenticed to an apothecary and continued his medical training at Guy's Hospital, obtaining the Licentiate of the Society of Apothecaries in 1816. In later life he went to London where his literary interests had begun to take a lead over everything else. He never practiced medicine.  The rest of his short life was dedicated to poetry [5,6].

**Key points**

* Using Poetry as a pedagogical tool in medicine can help inculcate and cultivate the practice of “empathy” among medical students.
* Writing poems enables students to articulate their feelings better as compared to traditional methods of learning.
* Poetry can foster mindfulness, creativity and critical thinking among medical students
* Involving medical students in poetry writing can galvanize active learning

**This new-doctor, was such an enchanter**

Though disease was harsh but not the doctor

His words like healing chimes, in those miserable times

Were creating new paradigms…

Transforming healing into happy encounters

While he swiftly moved from one patient to another

This new-doctor, was such an enchanter!

Where

Words like healing chimes, in those miserable times

Creating paradigms

transforming healing into happy encounters

disentangling all doubts while medicines played their part

While he lived in hearts a little longer

Though disease was harsh but not the doctor

This new-doctor , was one such enchanter!

Where,

Words like healing chimes, in those miserable times

Creating paradigms

transforming healing into happy encounters

Art of healing was transformed into real life happy encounters

Of faith and trust and happy home-coming

knitting yarns of understanding and warmth

Who lived in hearts a little longer

Though disease was harsh but not the doctor

This new-doctor , Was one such enchanter.

Juhi Kalra

**Decline of empathy among medical students**

It has been reported that there is a decline in empathy among medical students [7]. Medical students become more cynical as they progress through medical school. Study conducted by Hojat et al , [8] examines the changes in empathy in a class of third-year medical students using the Jefferson Scale of Physician Empathy (JSPE). He found a clinically significant reduction in total empathy score over the course of that year. In another study conducted by Bellini and Shea, consisting of 61 students who completed the Profile of Mood States (POMS) and the Interpersonal Reactivity Index (IRI) during their internal medicine residency at a university-based program, the IRI scores showed a decline in empathic concern that persisted through residency [9].

It is of common knowledge that medical students enter medical schools with utmost idealism and a desire to serve to the best of their capability. During the process of clinical training, they come across many adverse situations and challenges, they see death and disease in such burgeoning numbers that their sensitivity to pain and suffering may decline, making them relatively immune to the routine. Studies have revealed that such a decline in empathy may compromise professionalism and quality of health care [10]. In a study conducted by Afgani et al. on medical students perspectives on clinical empathy training, majority of respondents believed that “’time pressure and ‘’lack of good role models” as some of the barriers to acquiring empathy. Respondents rated breaking bad news, talking to patients about medical mistakes and taking care of dying or demanding patients as areas that need specific training [11]. So what happens to these students through their training that could explain this decline in empathy?

Following is a poem titled “Can I carry on? ”. The poem describes the case of a physician suffering from burnout. He had joined the medical college with unbridled enthusiasm. However, the myriad of factors recognized as causing ‘burnout’ –extreme exhaustion and cynicism towards work , he finally poses the inevitable question to himself : Can I carry on ?

**Can I carry on ?**

I had arrived with supreme confidence and pomp,

The sophomore,

Now a physician,

Wears a look forlorn.

My mind wanders,

As the patients sauntere ;

I care for them,

Braving the ruthless system ;

I am reluctantly drawn

To blame myself,

For the travesty that prevails.

Patients in hoardes,

Day in and out,

Drugs and disposables,

At times,

Out of sight.

The Foley’s is not there or has a hole,

The superior seldom heed,

My troubled discourse.

I try to draw,

All my energies :

But they do not answer my call,

Yet I have to carry on.

The patient is a case,

On paper and in person :

I push myself along,

I wonder :

How long,

Can I carry on ?

Swapnil Paralikar

**Literature reports several reasons for decline in empathy in medical field**

1. Current medical education emphasizes more on detachment and objective clinical neutrality [12]. It is a common belief among medical students in training, that empathizing with patients may cloud judgement when it comes to making decisions in medicine. There is a bias that emotional involvement in patient’s lives may cause straying from scientific reasoning and lead to lesser quality of care. This misbelief occurs commonly because most students confuse empathy with sympathy. Sympathy, as opposed to empathy, is predominantly an affective or emotional attribute that involves intense feelings of a patient’s pain and suffering, while there is a cognitive and affective domain to empathy [13]. An empathic physician would be more concerned about understanding of the kind and quality of patients’ experiences, whereas a sympathetic physician would be more concerned about feeling the degree and intensity (quantity) of patients’ experiences [14]. Sympathy can sometimes be detrimental in patient–physician relationships and can impede the neutrality that is necessary in clinical decision making, thus negatively influencing a physician’s performance. However, cognitively defined empathy always leads to personal growth, career satisfaction, and optimal clinical outcomes, whereas affectively dominant sympathy can lead to career burnout, compassion fatigue, exhaustion, and vicarious traumatization [15].

2.Human interaction, humanistic aspects of medicine and perspectives are often overlooked thus placing greater emphasis on informatics and technologies [16].

3. Higher emotional exhaustion and depersonalization in the final years of medical school may be a possible explanation for declining empathy over the years in medical education [17]. Increasing stress in the final years of medical school and focus on academic performance and theoretical learning may lead to medical students overlooking the importance of empathy. Perceiving patients as cases to study, as subjects to learn rather than as diseased people in need of treatment could be one of the many reasons leading to decline of empathy.

4. Studies prove that sadness at prolonged patient suffering has been attributed to be one of the causes of a decline in empathy[18].It may be assumed that medical students often come up with dehumanization of patients as a defense mechanism in order to prevent getting too attached to their patients and henceforth, too affected by their suffering. They perceive it to be vital to maintain a gap between the patient and the doctor and draw a line in order to save themselves from overbearing responsibilities of the patient’s own and his or her family’s sufferings, thinking if they spiral down that path of empathy, that they may themselves fall into depression. Not to mention, lack of sleep and overworking and fatigue prevents them from thinking clearly and making good clinical judgement, let alone practice empathy.

5. The concept of imbibing from role models may have suffered a setback [11]. We talk less of success stories and more of failures.

6. Other factors like decreased doctor patient ratio, shrinking of manpower and resources, focus on research at the expense of teaching and learning, increased litigation and defensive medicine can be the confounders [19].

**Possible reasons for the decline of empathy amongst medical students:**

* Current medical education system focusses on detachment and

objective clinical neutrality

* Biased opinion amongst the medical fraternity that emotional involvement in patient’s lives may interfere with scientific reasoning and lead to lesser quality of care
* Neglect of human interaction and humanistic aspects of medicine
* Greater emphasis on informatics and technology
* Perceiving patients as cases
* Exhaustion and depersonalization in the later years of medical school
* Dehumanization of patients adopted as a defence mechanism to protect them from patient’s suffering
* Culturally less emphasis on imbibing role models; more focus on failures

**Using Poetry in fostering Empathy-Evidences from** literature**:**

Lot of interest is being generated among medical educators regarding use of poetry in medicine to foster empathy [20]. Moreover, literature reports, that involving medical students in poetry can galvanize active learning, creativity as well as help in recollecting content in an intriguing manner in medical subjects [21,22].

In our effort to explore poetry as one of the pedagogical tool for fostering empathy, facilitate learning and creative writing among medical students we found several interesting facts. We found that that using poetry as one of the instructional method in medicine can help build empathy among medical students. The term ‘empathy’ is derived from the Greek word ….. (em-into, pathos-feeling). Empathy is further described as by Hojat etal;as “a cognitive attribute, which involves an understanding of the inner experiences and perspectives of the patient as a separate individual.” [23] It is an important skill for the medical practitioner and medical students while interviewing patients. This helps in developing soft skills needed to become competent doctors [24,25]. Studies report a positive result from targeted empathy training [8].Feighny and colleagues found that training in the early years of medical school enhances behavioral empathy among students and improves their communication skills [26]. Wilkes and coworkers reported an increase in medical students' empathy when they were themselves hospitalized [27,28]. They reported that a behavioral science course in medical school did not change students' orientations toward the patient as a person. These inconsistent results may be due to the nonspecific measure of empathy used in different studies or a lack of specificity in educational objectives.

Apart from this, poetry has also been reported to have a modulatory role in psychological and therapeutic setting of chronic illnesses like dementia, depression [29,30,31].The bottom line is there is need for innovative methods to address concerns regarding barriers to practicing empathy, as well as the need for more training in how to demonstrate empathy in challenging clinical situations. Poetry can be used as one of the pedagogical tool to serve this purpose.

**Using Poetry for teaching empathy in medical education**

Poetry can be used as a trigger for set induction prior to teaching the attributes of a good doctor or one can use this as a trigger to discuss the problems related to decline in empathy. E.g.

**Hear the silence within**

White walls, white coats

Stark gritty rooms,

Stethoscopes, and no

Smiles.

People lined up

Waiting, for their turn

Hopeful, to find

A cure to their

Ailments

Placing their trust,

And themselves

In experienced hands.

The hospital smelled,

Of disinfectants

And of the iodoform

Lingering in the air.

Why not of the hope

I wondered

That finds it's place

Leaving one,

Filling another.

The walls looked

spick and span

Scrubbed thoroughly

Of all traces.

These walls hold a lot of emotions

These walls hold a lot of memories

The sigh of relief

When a loved one

Makes it through.

The cry of joy

When a new life

Has arrived.

The bone chilling wails

Of the mother

Who lost her son.

And the widow, he left

The silent sniffles

Marred by intuition

Of the impending death.

The giggles, the smiles,

Of the children unaware

A few days of life left

But unending innocence to spare.

The poem emphasizes on the wide spectrum of emotions that a hospital witnesses on a day to day basis - deaths, births, terminal illnesses and miraculous cures. Cognitive overloading as well as never ending demands of workplace are some of the reasons for decline in empathy among health care professionals and students. Simultaneously it, aims to make the reader pause to acknowledge pain, empathize with their suffering, rejoice in their well being, and inspire hope for a better tomorrow.

**Poetry as a creative writing tool**

Writing poetry is a creative exercise. Thus, students can learn to make connections across disciplines, master the concepts and even develop the ability to make metaphors and analogies. Poetry writing is generally encouraged after teaching a particular topic. Thus, students actively engage with the content of a previously taught topic. Poetry can help students develop critical thinking skills, which is essential for nurturing the skills of clinical reasoning or ‘thinking on the go.’ This process can help transfer the chunks of information previously stored in short-term memory into long-term memory. Making connections across disciplines will ensure that the knowledge does not remain ‘inert’, but becomes ‘meaningful’ [32,33,34].

A large chunk of medical poetry is written on topics related to medical ethics and professionalism. These poems feature ‘sentinel’ events in the wards/clinics, or occurring in the life of the student. The process of writing poetry can help the student reflect on such events, a vital skill to solve ‘messy’ indeterminate issues in professional life [35].

**CONCLUSION:**

There is no dearth of role models, everyday life and the immense opportunities in a doctor’s life are enough of a reason to turn practice of medicine into prayer. It’s time we share more anecdotes of positivity, of healing, so that they far exceed the negativity that occasionally clouds media and people’s mind when they begin to expect doctor as not a healer but as someone who can impart immortality. The duties of doctors never mention imparting immortality, but they do require a fundamental check on where are we lacking. If its empathy, dedicated, determined and definite efforts to introduce it in our curriculum and daily teaching can go a long way to realign the dwindling culture of compassion that comes with duty and skilful handling of our patients. Poetry writing and discussion can support the development of empathy, soft skills, and the ability to think creatively. Poetry can help emphasize the need of good behavior and the patient’s expectations of a doctor.

**References:**

1.”[Poetry](http://oxforddictionaries.com/definition/english/poetry?q=poetry)”. Oxford Dictionaries. Oxford University Press. 2013

2. Wade, B. and Sidaway, S. (1990) Poetry in the curriculum: a crisis of confidence. Educational Studies, 16(1), 75-83.

3 Creely E. 'Poetry is dying': Creating a (re) new (ed) pedagogical vision for teaching poetry. Australian Journal of Language and Literacy, The. 2019 Jun;42(2):116.

4. Simecek K, Rumbold K.The Uses of Poetry, Changing English 2016,23:4, 309-313.

5. Smith H. John Keats: poet, patient, physician. Reviews of infectious diseases. 1984 May

1;6(3):390-404.

6 . Stammers T. Healing Allusions: The use of Poetry in Medical Education. J Contemp Med Edu 2015; 3:127-33.

7 Nunes P, Williams S, Sa B, Stevenson K. A study of empathy decline in students from five health disciplines during their first year of training. Int J Med Educ. 2011 Aug 2;2:12-17.

8.Hojat M, Mangione S, Nasca TJ, Rattner S, Erdmann JB, Gonnella JS, Magee M.An empirical study of decline in empathy in medical school. Medical education. 2004 Sep;38(9):934-41.

9. Bellini LM, Shea JA. Mood change and empathy decline persist during three years of internal medicine training. Acad Med. 2005.

10 . Neumann M, Edelhäuser F, Tauschel D, Fischer MR, Wirtz M, Woopen C, Haramati A,Scheffer C. Empathy decline and its reasons: a systematic review of studies with medical students and residents. Academic medicine. 2011 Aug 1;86(8):996-1009.

11. Afghani B, Besimanto S, Amin A, Shapiro J. Medical students' perspectives on clinical empathy training. (2011): 544-554.

12. Evans BJ, Stanley RO, Burrows GD. Measuring medical students' empathy skills. Br J Med Psychol. 1993.

13.Hojat, Mohammadreza, et al. "The devil is in the third year: a longitudinal study of erosion of empathy in medical school." Academic Medicine 84.9 (2009): 1182-1191.

14. Hojat M. Empathy in Patient Care: Antecedents, Development, Measurement, and Outcomes. New York, NY: Springer; 2007

15. Linley PA, Joseph S. Therapy work and therapists’ positive and negative well-being.J Soc Clin Psychol. 2007;26:385–403

16. Jha AK, Doolan D, Grandt D, Scott T, Bates DW. The use of health information technology in seven nations. Int J Med Inform. 2008;77(12):848–854.

17. Paro, Helena BMS, et al. "Empathy among medical students: is there a relation with quality of life and burnout?." PloS one 9.4 (2014): e94133.

18 . Spencer J. Decline in empathy in medical education: how can we stop the rot? Med Educ 2004;38: 916–8.

19. Lamothe M, Boujut E, Zenasni F, Sultan S. To be or not to be empathic: the combined role of empathic concern and perspective taking in understanding burnout in general practice. BMC family practice. 2014 Dec;15(1):15.

20. Shapiro J, Rucker L. Can poetry make better doctors? Teaching the humanities and arts to medical students and residents at the University of California, Irvine, College of Medicine.Academic Medicine. 2003 Oct 1;78(10):953-7.

21.Hatem D, Ferrara E. Becoming a doctor: fostering humane caregivers through creative writing. Patient education and counseling. 2001 Oct 1;45(1):13-22.

22. McBain L, Donnelly S, Hilder J, O’Leary C, McKinlay E. “I wanted to communicate my feelings freely”: A descriptive study of creative responses to enhance reflection in palliative medicine education. BMC Med Educ. 2015; 15:180.

23. Hojat M, Gonnella JS, Nasca TJ, Mangione S, Vergare M, Magee M. Physician empathy: Definition, components, measurement, and relationship to gender and speciality. American Journal of Psychiatry. 2002 Sep 1; 159(9): 1563:9.

24.Marcus ER. Empathy, humanism and the professionalization process of medical education. Acad Med. 1999

25. Stammers T. Healing allusions: the use of poetry in medical education. Journal of Contemporary Medical Education. 2015 Nov 3;3(3):127-33.

26 Feighny KM, Arnold L, Monaco M, Munro S, Earl B. In pursuit of empathy and its relationship to physician communication skills: multidimensional empathy training for medical students. Ann Behav Sci Med Educ. 1998

27. Wilkes M, Milgrom E, Hoffman JR. Towards more empathic medical students: a medical student hospitalization experience. Med Educ. 2002

28 Markham B. Can a behavioural science course change medical students' attitudes? J Psychiatr Educ. 1979

29 .Eum Y, Yim J. Literature and art therapy in post-stroke psychological disorders. The Tohoku journal of experimental medicine. 2015;235(1):17-23.

30 Kidd LI, Zauszniewski JA, Morris DL. Benefits of a poetry writing intervention for family caregivers of elders with dementia. Issues in Mental Health Nursing. 2011 Aug 19;32(9):598-604.

31 Swinnen AM. Healing words: A study of poetry interventions in dementia care. Dementia.2016 Nov;15(6):1377-404.

32. Kalra J, Singh S, Badyal D, Barua P, Sharma T, Dhasmana DC, et al. Poetry in teaching pharmacology: Exploring the possibilities. Indian J Pharmacol 2016; 48: S61-4.

33. Robinson K, Aronica L. The Art of Teaching in Robinson K, Aronica L(authors ):Creative Schools : The Grassroots Revolution that’s Transforming Education, 1 st edition.New York : Penguin Books ; 2015.

34. Modi JN, Anshu, Gupta P, Singh T. Teaching and assessing clinical reasoning skills. Indian Pediatr 2015 Sep; 52 (9): 787-94.

35. Kaufman DM, Mann KV. Teaching and learning in medical education: How theory can inform practice in Tim Swanwick (editor): Understanding Medical Education: Evidence, Theory and Practice. West Sussex: Wiley Blackwell, 2014.