

Learning Humanities through Art in Medical Education — A Potential Exercise to Improve Observational Skills

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ABSTRACT

Aim of the study: Art in Medical education has a potential role in learning non-scientific elements of medicine. In our study, we wanted to find the effectiveness of using art in medical education. And also to find the effectiveness of developing clinical observation skills for first-year medical students. **Materials & Methods:** About 102 students of Sri Siddhartha Institute of Medical Sciences and Research Centre, T-Begur, including both boys and girls who volunteered for the study were included. Three sessions were conducted on "Art in Medical Education". The first session included a lecture class for Sensitising on "Art in Medical Education" and followed by a panel discussion. In the second session, there was a group discussion on case-based paintings by the students. In the third session, students were encouraged to exhibit their paintings and interpret them. All the sessions were conducted in Virtual platform-'Zoom'. The collective opinion was noted, answers to open-ended questions were noted, and a feedback was taken into consideration for Analysis. Data were analysed using a Microsoft excel sheet, and results were tabulated. **Results:** Most of the students agreed that using Arts to learn empathy, good doctor-patient relationship, and ethics is beneficial. Also, 95% of the students believed that Art-based learning can reduce performance anxiety in clinical examinations. **Conclusion:** Adopting 'Art in Medical Education' into medical school's curriculum helps prepare the medical students for their future impending clinical experience by providing intentional training in clinical observation skills.

KEY WORDS: Kew words: Humanities, Art, Medical education.

Introduction

Humanities in medical education has increasingly gained interest in medical educators. It includes multiple disciplines like history, philosophy, cultural beliefs, visual arts, theatre, psychology, sociology, anthropology.^[1] Integrating Humanities into medicine is a novel approach for better learning of professionalism in medical education. Arts like painting, movies, role play facilitate for a better

understanding of the healing aspects of medicine which includes, a compassionate communication, social and emotional empathy, creative thinking, building a good patient-doctor relationship and Positive physician socialization.

Art in the form of sculptor, painting, music, roll play, movie are well established in expressing the non-scientific elements such as patient doctor relationship, empathy, communication, socialization and observational skills.^[2,3]

Medical education is more dominated by the practice of evidence-based medicine. With the focus on speciality based treatment holistic approach of the patient is hardly established. Currently, more emphasis is on curing the disease rather than healing the patient.^[4]

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The importance of observing the patient as he/she enters into the examination room, careful clinical examination, and hypothesizing the patient's condition with the observation of the patient is largely fading away. This has led to a wide gap between the patient and the doctor and has been a significant setback in the patient-doctor relationship.

Medical education has realized the lacunae of soft skills and clinical skill development in the students of medical school. This has led to a revolution in the medical field where the art of treatment is conjuring the science of knowledge. The focus of medical education has shifted from mere technical skills to arts to stimulate the holistic approach in healing the diseased. [5,6]

Art in the form of a painting or a role play helps in broadening the perspectives, helps in lateral thinking, and also explore different angles of perception. [7] Art helps in understanding the emotions, facial expressions, body language, and nonverbal cues of the patient's suffering. [8,9] For ages clinical and observational skills have been taught informally by looking at the senior professors, or the senior batch students or by hearsay. But it was very subjective and depended on the observation skills of the student. To harness these observation skills, several arts-based courses have been introduced in the medical schools in different universities wherein several difficult-to-teach aspects of medical education has been taught. [10,11]

Many studies have utilized the visual arts to train the students regarding medical humanities and found that it was effective in improving various skills. [12-14] The Art of Examination: Art Museum and Medical School Partnerships Forum' from May 2017 [15] declared that they worked together and offered several courses in various medical schools at USA, Canada, Australia, and Italy, which helped in improving the professionalism. While there is an increasing importance of art based courses in medical schools in the west, the eastern countries have also started its inclination on use of art based learning in medical education.

In our study we wanted to find the effectiveness of using art in medical education. And also to find the effectiveness of Visual Thinking Strategy" (VTS) in understanding and developing clinical observation skills for first year medical students.

We hypothesized that Online virtual session on art in Medical Education is a potential exercise for I MBBS students to improve their observational skills.

Materials and Methods

The study was done on 150 first-year MBBS students after obtaining informed consent. It included both boys and girls at Sri Siddhartha Institute of Medical Sciences and Research Centre, T- Begur. Among 150 students involved, 102 students who attended the sessions, responded to the questions and volunteered for study were included.

The first MBBS students who volunteered for the study were requested to use the zoom application, and only those who attended the complete sessions of three days were included in the study. The Students who failed to login for the session were excluded from the study.

By using the Zoom application online platform, the students were sensitized on "Art in Medical Education" by a session which was taken in the form of an online lecture and followed by a panel discussion. Followed which students were divided into ten groups, and each group chose a facilitator from among them. For each group case-based painting was given as an exercise and allowed them for self-directed learning and group discussion for knowledge sharing and interpretation of the painting. Later a session was conducted on reflection of the students to know their perception. Followed by which the students were asked to make an art painting on Medical Humanities and interpret them in the following (third) session.

Students' feedback was taken through Google forms on Student's perception towards excise conducted regarding "Art in medical education e-learning". Which includes the following questions: (1) What is your observation about the picture? (2) What do you see that makes you say that?" (3) Can Art stretch perception and imagination? And a questionnaire was sent through Google forms to each student containing ten questions based on an online virtual session on art in Medical Education.

Data Analysis: Data Analysis was done using an excel sheet, and results were tabulated. The collected data were analysed by percentages. The responses to each question were given a score of highest to the most desirable answer. Answers were categorized on 5 points Likert scale into outstanding, very satisfactory,

satisfactory, unsatisfactory & poor.

Results

The study was done to know the reflections of students regarding the Art in learning Medical Humanities. A group of 102 students studying in 1st year MBBS participated in the study. All the students actively participated in the session. They were of the opinion that using Art was helpful to learn soft skills like critical thinking, clinical observation, Positive physician socialization skills, and body language programs.

Further, the questionnaire given was provided in order to identify their state of perception towards "Online virtual session on art in Medical Education". The data collected was, statistically evaluated and the scores were tabulated in table 1. About 62.4% of the students felt that art-based e-learning was important. And the purpose of Art based e-learning to stretch perception and imagination was satisfactory for about 54.5% of students and very satisfactory for 34.7% of them. 95% of the students said that Arts-based e-teaching techniques could improve your creative thinking, 85.1% of the students opined that Arts-based e-teaching techniques can develop positive physician socialization skills. The majority of the students said that using Arts to learn empathy, good doctor-patient relationships, and ethics was satisfactory, very satisfactory, and outstandingly conveyed. Also 95% of the students were of the positive opinion that Art-based learning can reduce performance anxiety in clinical examinations.

During the discussion session most of the students opined that the given Art was self-depicting on various aspects of Humanism. It also enhanced their thinking ability and improve their observational skills. They also opined that it provided a sense of relaxation and reduced burnout due to pressed academics.

Discussion

In this study, we focused on the effectiveness of using art in medical education for preclinical students. It was found that the majority of students had a satisfactory positive opinion that Art helps in enhancing their observational skills.

Observing and interpreting an Art encourages the student's lateral thinking. Especially after conducting the session on "Art in medical education," the students opined that they started to think beyond

what they studied and also they started to analyze what they studied. It facilitated them to introspect the situations, enhanced observation skills and brought flexibility in their thinking.

Most of the studies emphasized that art in medical education enhanced learning ability of non non-verbal cues, empathize with their patients, and reduce performance anxiety in situations like examinations and presentations.^[16]

Several studies done in the field of Art in medical education like the study done by Jones EK, Kittendorf AL, Kumagai AK emphasize on encouraging the students to create art on the illness and suffering, which helped them to conceptualize the teamwork and created an awareness of the patient-centered worldview and also said that it can be considered as a novel educational tool in order to promote the humanism in medical practice.^[17]

In our study, we chose to know the perception of the students on Art to develop the observational skills. The paintings provided for the students depicted views on the nurturing of patients, suffering of patients, Patient doctor relationship, and many more, which brought out the students' observational skills and multi-dimensional views. Later the paintings done by the students also brought out the understanding of the students on various soft skills that are hard to be taught in formal medical education.

The strength of our study was that we had a diversified approach. We took into consideration the group discussion carried out by the students based on the paintings given to them. We encouraged the students to create their own picture art and explain the humanistic values they depicted by their painting. We also took into consideration the reflections given by them on the session. And their opinion through the questionnaire framed by us. The excise conducted for the students helped them to build their creative thinking and collaborative work.

The study limitations were, firstly, the total number of study participants was 150 and it was held only for the preclinical students. The Para clinical students and the Clinical students who are actually exposed to the patient encounter may come out with further extended views. The programme was conducted only at one medical school in south India.

Table 1: Grading of Students perception towards art - based learning

Sl. No	Questions	Outstanding	Very satisfactory	Grading		
				Satisfactory	Unsatisfactory	Poor
1	What is your opinion about art based e-learning?	7.9%	25.7%	62.4%	4.0%	0%
2	Art based e-learning can stretch perception and imagination?	6.9%	34.7%	54.5%	3.0%	1.0%
3	Arts-based e-teaching techniques can improve your clinical observational skills?	7.9%	35.6%	50.5%	5.0%	1.0%
4	Arts-based e-teaching techniques can improve your creative thinking?	22.8%	32.7%	40.6%	3.0%	1.0%
5	Arts-based e-teaching techniques can develop your positive physician socialization skills	5.0%	47.5%	32.7%	14.9%	0.0%
6	Art can be a vehicle to develop empathy?	13.9%	26.7%	55.4%	4.0%	0.0%
7	Art can be used to study patient doctor relationship?	16.8%	23.8%	49.5%	9.9%	0.0%
8	Art can be used to understand ethical Medical Practice.	9.9%	29.7%	54.5%	4.0%	2.0%
9	How satisfied are you with learning objectives through art based e-learning	7.9%	24.8%	62.4%	4.0%	1.0%
10	Art based e-learning can reduce 'performance anxiety' in situations such as clinical examinations.	14.9%	32.7%	47.5%	5.0%	0.0%

Incorporating Art in to medical education not only enhanced their observational skills it also helped them to develop lateral thinking, analyzing ability, created collaborative working environment and alleviate boredom.

Conclusion

Adopting 'Art in Medical Education' into medical school's curriculum helps prepare the medical students for their future impending clinical experience by providing intentional training in clinical observation skills. Technology can also be used to teach medical humanities to medical students. With this process the problem of time management allocated for medical humanities can also be overcome.

Scope for further study: the study can be extended to other students studying in the second year, final year, and Interns who are actually exposed to patients and who can practically utilize the lessons learned.

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References

1. Aull F. "Medical Humanities". Medical Humanities Community. 2011.
2. Lake J, Jackson L, Hardman C. A fresh perspective on medical education: the lens of the arts. *Med Educ.* 2015;49(8):759-772. Available from: <https://doi.org/10.1111/medu.12768>.
3. Shapiro J, Rucker L, Beck J. Training the clinical eye and mind: using the arts to develop medical students' observational and pattern recognition skills. *Med Educ.* 2006;40(3):263-268. Available from: <https://doi.org/10.1111/j.1365-2929.2006.02389.x>.
4. Reilly BM. The essence of EBM. *BMJ.* 2004;329(7473):991-992. Available from: <https://doi.org/10.1136/bmj.329.7473.991>.

5. Naghshineh S, Hafler JP, Miller AR, Blanco MA, Lipsitz SR, Dubroff RP. Formal art observation training improves medical students' visual diagnostic skills. *J Gen Intern Med.* 2008;23(7):991–997. Available from: <https://doi.org/10.1007/s11606-008-0667-0>.
6. Schaff PB, Isken S, Tager RM. From contemporary art to core clinical skills: observation, interpretation, and meaning-making in a complex environment. *Acad Med.* 2011;86(10):1272–1276. Available from: <https://doi.org/10.1097/ACM.0b013e31822c161d>.
7. Bardes CL, Gillers D, Herman AE. Learning to look: developing clinical observational skills at an art museum. *Med Educ.* 2001;35(12):1157–1561. Available from: <https://doi.org/10.1046/j.1365-2923.2001.01088.x>.
8. Aita V, Lydiatt W, Gilbert M, McGraw H, Masuoka M. Here I am and nowhere else: portraits of care by Mark Gilbert at the intersection of art and medicine. *Lit Art & Med.* 2009. Available from: <http://medhum.med.nyu.edu/blog/?p=172>.
9. Aita VA, Lydiatt WM, Gilbert MA. Portraits of care: medical research through portraiture. *Med Humanit.* 2010;36(1):5–13. Available from: <http://dx.doi.org/10.1136/jmh.2009.003780>.
10. Hojat M, Gonnella JS, Nasca TJ, Mangione S, Vergare M, Magee M. Physician empathy: definition, components, measurement, and relationship to gender and specialty. *Am J Psychiatr.* 2002;159(9):1563–1572. Available from: <https://doi.org/10.1176/appi.ajp.159.9.1563>.
11. Katz JT, Khoshbin S. Can visual arts training improve physician performance? *Trans Am Clin Climatol Assoc.* 2014;125(3):331–341. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112699/>.
12. Liou KT, Jamarabo DS, Dollase RH, Dumenco L, Schiffman FJ, Baruch JM. Playing in the “gutter”: cultivating creativity in medical education and practice. *Acad Med.* 2016;91(3):322–329. Available from: <https://doi.org/10.1097/ACM.0000000000001018>.
13. Elder NC, Tobias B, Lucero-Criswell A, Goldenhar L. The art of observation: impact of a family medicine and art museum partnership on student education. *Fam Med.* 2006;38(6):393–398. Available from: <https://pubmed.ncbi.nlm.nih.gov/16741837/>.
14. Perry M, Maffulli N, Willson S. The effectiveness of arts-based interventions in medical education: A literature review. *Med Educ.* 2011;45(2):141–148. Available from: <https://doi.org/10.1111/j.1365-2923.2010.03848.x>.
15. Pitman B. Art museum and medical school partnerships: program descriptions. 2017.
16. de la Croix A, Rose C, Wildig E, Willson S. Arts-based learning in medical education: the students' perspective. *Med Educ.* 2011;45(11):1090–1100. Available from: <https://doi.org/10.1111/j.1365-2923.2011.04060.x>.
17. Jones EK, Kittendorf AL, Kumagai AK. Creative art and medical student development: a qualitative study. 2016;51(2):174–183. Available from: <https://doi.org/10.1111/medu.13140>.

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