

Film as an educational tool in medical pedagogy: A study on cinemeducation and its effectiveness

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Abstract

Objective: To find out the possibilities and usefulness of introducing cinemeducation in medical institutions, and to formulate suggestive inserts for faculty and policy-makers.

Methods: The quantitative study was conducted in Lahore from January to June 2021 after approval from the ethics review committee of King Edward Medical University, Lahore, and comprised fourth and final year medical students. Relevant short clips from seven movies of different genres were selected and shown to the students who were then divided into eight equal groups. Every session lasted 30 minutes, and was followed by an interactive discussion between the students and faculty members. The critical aspects of the sessions were discussed and analysed. Data was collected using a 7-item questionnaire that was scored on a 5-point Likert scale. Data was analysed using SPSS 21.

Results: Of the 240 participants, the questionnaire was returned duly filled by 219(91.25%). Among them, 176(80.4%) said they found the experience worthwhile and that they would like to have such an experience again, while 184(84%) said such sessions should be made a part of regular curriculum. Also, 166(75.8%) participants felt that the session had helped them learn about crucial features of medicine, and 169(77%) thought that the session facilitated the understanding towards patient management.

Conclusion: Cinemeducation was found to be an excellent tool of pedagogy that should be incorporated in all the relevant disciplines of medicine and allied sciences.

Keywords: Cinemeducation, Methodology, Curriculum. (JPMA 74: 1051; 2024)

DOI: <https://doi.org/10.47391/JPMA.9207>

Introduction

The beneficial impact of visual medium on the viewers is a well-recognised and documented phenomenon since decades even though it started as a recreational activity. However, now it has a multifaceted role globally. The relatively new concept of cinemeducation is primarily meant for students of medicine and allied health science, and was first set forth by Alexander Mathew et al., who defined it in an oversimplified way as the use of films in medical education.¹ This important teach-learn concept has already met success in diverse disciplines, like family medicine, psychiatry, palliative care and ethical therapeutics, because movies can address in a much better way not only diseases, but their after-effects, like emotional suffering as well as societal and ethical complexities.²

The University of California was perhaps the pioneer in introducing in curricula the use of modalities like movie

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Submission complete: 04-03-2023

Review began: 04-04-2023

Acceptance: 28-02-2024

Review end: 20-12-2023

clips, role plays, poetry etc. with the intention of resolving complex professional and personal reactions.³ Majority of relevant studies have been done in the United States and Europe, but its conception is now broadened to African and Asian medical institutions.⁴ Teaching through film is gaining popularity amongst medical learners as it aids them in acquiring knowledge about their professional career. Its ability to engage audience and present the medical complexities in an entertaining way has highlighted the importance of this kind of pedagogy.⁵ The benefits of cinemeducation depends upon the knowledge that a student possesses and the activity planned by the teacher. Students who are in the final years of their degree are likely to get more benefit than students who are in the initial classes.⁶

Students agree to the fact that cinemeducation has enabled them to understand how illness can affect patients and families. Different scenarios presented in the movies have helped them to get ready for situations that they are likely to face in their medial careers. They learned about major ethical problems, including doctor-patient relationship, management of hereditary disorder, organ transplantation and brain death. This methodology helps students in developing critical thinking along with moral upstanding.⁷

As they become familiar with state-of-the-art health monitoring systems through cinematic narratives, medical students are better equipped to navigate the intricacies of modern healthcare.⁸

The current study was planned to find out the possibilities and usefulness of introducing cinemeducation in medical institutions, and to formulate suggestive inserts for faculty and policy-makers.

Subjects and Methods

The quantitative study was conducted in Lahore from January to June 2021 after approval from the ethics review committee of King Edward Medical University, Lahore, and comprised fourth and final year medical students. The relevant clips, genre and theme were selected by the Beaconhouse National University, Lahore, and was screened and analysed at various medical teaching institutions. Clips from 7 movies were selected. Each clip was selected on the basis of medical content and ability to convey lessons regarding different aspects of medical practice and professionalism, giving more importance to empathy than sympathy (Table 1). It was ensured that students already had a good know-how of the stuff shown and movies in which students were not familiar and lack medical content were excluded from the study.

The clips were shown to the students after taking informed consent from all of them by employing non-random convenient sampling technique. They were divided into 8 equal groups. Every session lasted 30 minutes, and was followed by an interactive discussion between the students and faculty members. The critical aspects of the sessions were discussed and analysed.

Data was collected using a 7-item questionnaire that was scored on a 5-point Likert scale which the students were asked to fill in order to document their thoughts on the activity conducted. The questionnaire was highly reliable as the Cronbach's alpha value was 0.81. Data was analysed using SPSS 21.

Results

Of the 240 participants, the questionnaire was returned duly filled by 219(91.25%). Among them, 176(80.4%) said they found the experience worthwhile and that they would like to have such an experience again, while 184(84%) said such sessions should be made a part of regular curriculum. Also, 166(75.8%) participants felt that the session had helped them learn about crucial features of medicine, and 169(77%) thought that the session facilitated the understanding towards patient management (Table 2).

Table-1: Clips selected to point out different competencies.

Sr. No.	Name of Movie	Year of release	Theme content
1	Saving face	2004	Dedication to cause, decision making, professional counselling
2	Yaqeen ka safar	2011	Professional Rivalry, Palliative care, Stress management
3	Ranjha Ranjha kardi	2018	Mental illnesses in Pakistan, family conflicts relationship with disease
4	Dear Zindigi	2014	Professional ethics, bringing colours to patients' life
5	The Doctor	1991	Medical professionalism, Breaking bad news
6	Patch Adams	1998	Empathy, paediatrics patient care
7	Munna Bhai MBBS	2003	Compassion, inspirational therapy

Discussion

Students can benefit from medicine as well as humanities to enhance their knowledge which prepares them for application of their skills. Cinemeducation was found effective in a study in increasing tolerance level of students, who agreed that it had helped them in controlling their own anxiety while dealing with the patients.⁹ Selection of right content and emotional portrayal should be accurate. Clips can be used as a beneficial adjuvant to the syllabus and the genre of documentary proves to be a preferred form of learning among majority of students.¹⁰ The use of shows followed by problem-solving sessions can result in better learning. However, in order to achieve best results, crucial scrutiny of the material must be done before screening.¹¹ Films are considered more effective for learning compared to other conventional mediums. The depiction of human psychological connection with problems helps students to better understanding of practical day-to-day concerns.¹² Oaths and codes of conduct can be taught to students via visual mediums so that relevant clips can encourage students to acknowledge and apply their oaths in their careers.¹³

Table-2: Responses to the study questionnaire analysed.

S. No.	Question	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
1	Will this movie session help me in my medical practice?	9 (4.1)	20 (9.1)	12 (5.5)	57 (26)	121 (55.3)
2	Will Screened clips help me to gain more knowledge and new perspectives about my profession?	7 (3.1)	27 (12.3)	20 (9.1)	30 (13.6)	135 (61.6)
3	Will this session facilitate my understanding towards my approach to patient's management?	6 (2.8)	25 (11.4)	19 (8.8)	90 (41)	79 (36)
4	Have the discussions after such sessions enhanced my understanding of the subject under study?	10 (4.6)	16 (7.3)	27 (12.3)	58 (26.5)	108 (49.3)
5	Shall such programmes should be conducted in future?	7 (3.1)	16 (7.3)	20 (9.1)	51 (23.2)	125 (57.2)
6	Shall this be made a regular part of our teaching plan?	5 (2.3)	12 (5.5)	18 (8.1)	63 (28.8)	121 (55.3)
7	Have these clips made me realize the importance of visual media in teaching methodology?	11 (5)	5 (2.3)	19 (8.7)	73 (33.4)	111 (50.6)

The use of cinemeducation is expanding for teaching medical and allied health students, William et al.⁵ believed that cinemaeducation has been identified as a powerful tool for pedagogy. The results of the current study showed that cinemeducation could help students to become more caring and understanding towards their patients. The result was in line with an earlier study.⁹ Moreover, both these studies also highlighted the role of humanities in learning as majority of students in the current study agreed or strongly agreed that the film media in education played a salient role.

About 73.3% of the current students agreed that the movie session had helped them to understand about their profession. The study was in line with another study.¹² The current respondents also agreed that interactive faculty discussion after the session had increased their understanding of the topic. An earlier study¹¹ reported that the videos alone were not enough for the students to get complete knowledge of the subject matter and, therefore, group discussions were also of significance. The current results showed that 78.3% students agreed/strongly agreed that cinemeducation should be made a part of their curriculum, while other students were either not confident about their answer or they were not in support of such steps. This gap may either increase or decrease with a larger sample size. A study¹⁰ also reported that not all students were comfortable with this type of education.

Jina et al.⁸ argued that cinemeducation can help medical students to learn about important aspects of their professions. The results of the study also supported the finding. A majority of current students were of the view that movie sessions will help them to prepare for their professional life. Similar results have been reported earlier.⁷ In Brazil, Blasco has been using movies and literature to educate medical students for many years, and is reported to have said that with the support of faculty members important issues and emerging themes can be highlighted, leading to an enjoyable way of imparting academics.¹⁴

Cinema-watching can affect neurophysiological processes in various ways. Watching a movie can affect different regions of the brain and is akin to consciousness structure.¹⁵ Cognitive Movie Index is a collection of movies showcasing various aspects of cognitive sciences. At a Brazilian university, a project titled "Neurocine: from Art to Science" was developed where a movie was screened dealing with a neurological theme and was followed by a talk by a neurology consultant.¹⁶ Television and movies have become an integral part of modern life. Novels and written word require the reader to use their imagination to put themselves in the position of the characters and the

situations they are experiencing, whereas movies directly take the viewer to a certain scenario and may require least use of imagination. However, not everyone is convinced, arguing that the majority of films are made for commercial, not educational, reasons.¹⁷ Scientific truth is often overshadowed by narrative requirements in films, and, therefore, a watchful eye is required while using cinema in real-time therapy.

Despite the lack of quantified research to support the current advocacy for film use in the teaching of bioethics, the medium of films has been advocated by various educators since long. The current students also conceded that such methodology was of extreme help in enhancing their learning, and recommended others to attend such sessions. This was in line with earlier findings.¹⁸

The current study has limitations as it was conducted in a single city which might have affected the outcomes owing to cultural or other biases. Moreover, a small sample size was also a critical limitation.

Despite the limitations, however, the study highlighted the role of cinemeducation and digital media that can enhance learning via visuals and clips. In this way, emotional intelligence can be incorporated in medical learning. It is recommended that the policy-makers should actively consider including cinemeducation as a teaching methodology tool for medical students. Before the screening, a brief introduction to the movie can be provided. The screening should be followed by group activities and facilitators' input.

Conclusion

The current education imparted to medical students has an emphasis on scientific principles. The evolution of Medical Humanities is useful when affective domain and learning are linked with practical experiences. The findings showed that cinema education could prove to be an effective tool of pedagogy for medical and related professions. A combination of entertainment and learning can be helpful for students in learning about various aspects of their field.

Acknowledgement: We are grateful to all the participants and institutions for facilitating the study.

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: None.

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Author Contribution:

UNC: Concept, drafting, interpretation.

SI: Helping in selection of material to be presented interpretation.

NUA: Data collection, questionnaire filling, coordination.

HA: Drafting and review literature search.

WS: Data analysis and interpretation.

KM: Revisiting data and supervision.