

Cine Medicine in Indian Scenario: A SWOT Analysis

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Abstract

Cinema has the ability to convey important messages in an engaging and interesting manner. Cine medicine also known as cinema medicine or Cinemeducation has the potential to teach medical students and healthcare professionals about various aspects of medical conditions and illnesses. It is an innovative approach that can enhance empathy among the students and understanding toward patients with various medical conditions. Indian cinema has played a significant role in promoting health awareness and educating people about various medical conditions. Cinemeducation/Cine medicine can be instrumental in inculcating ethics and professionalism among budding clinicians. Of late, medical educationists have understood its importance and have introduced this innovative method in teaching not only medical humanities but medicine *per se*. This article aims to summarize the strengths, weaknesses opportunities, and threats analysis of the cine medicine along with reviews of Indian cinema for emphasizing the medical condition depicted in these cinemas/movies.

Keywords: AETCOM, cine medicine, cinemeducation, medical education, SWOT

BACKGROUND

Cine medicine also known as cinema medicine or cinemeducation is a growing field that uses movies and television shows to teach medical students and healthcare professionals about various aspects of medical conditions and illnesses. Cinema has been an influential medium of entertainment and education for several decades and hence the feature is aptly described as infotainment (information + entertainment). Cinema as a mode of teaching and learning tool has been used in adult learning but its use in medical education has not been adequately explored till date. Its introduction in medical education has opened a new arena of medical learning. It is a unique and innovative approach that can enhance the learning experience and improve knowledge retention, as well as promote empathy and understanding toward patients with various medical conditions.^[1] Indian cinema has played a significant role in promoting health awareness and educating people about various medical conditions.^[2] Over the years, the professionalism and ethics in medical education has been neglected but with the introduction of Attitude, Ethics and Communication (AETCOM) in medical education, cinemeducation/cine medicine is a ready reckoner for highlighting many aspects of the medical field.

Indian cinema has produced several movies that have depicted medical conditions in an accurate and informative manner.

These movies can be used as valuable resources for medical education and training. However, it is important to critically evaluate the medical information presented in movies and to avoid stereotypes or stigma toward certain patient groups. Overall, cine medicine has the potential to transform medical education and improve healthcare outcomes.

CINEMA MEDICINE AND PUBLIC HEALTH

Cinema medicine has a significant role to play in promoting public health awareness and education. Movies have a wide reach and can motivate audiences through engagement to take action toward improving their health and well-being.^[3] Here are some ways in which cinema medicine can contribute to public health:

- **Raising awareness:** Movies can help raise awareness about various health issues and diseases. They can visually depict the symptoms, risk factors, and the

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appropriate preventive measures for different medical conditions in an accessible and engaging manner. For example, the Bollywood movie “Taare Zameen Par” (2007) raised awareness about dyslexia and the need for early diagnosis and support.

- **Promoting healthy behaviors:** Movies can also promote healthy behaviors and lifestyle choices. They can inspire viewers to adopt healthy habits such as regular exercise, a balanced diet, and stress management. For example, the Bollywood movie “15 Park Avenue” (2005) promotes understanding of schizophrenia and the importance of having support from family and community.
- **Reducing stigma and discrimination:** Movies can help reduce the stigma and discrimination associated with certain health conditions. They can humanize patients with illnesses and disabilities and challenge negative stereotypes. For example, the Bollywood movie “My Brother Nikhil” (2005) raised awareness about HIV/AIDS and the discrimination faced by patients with this disease.
- **Advocating for policy change:** Indian cinema has been a tool for health advocacy and policy change. They can highlight the systemic factors that contribute to health disparities, for further advocacy. In recent years, movies like “Article 15” (2019) and “Toilet: Ek Prem Katha” (2017) have addressed social issues related to social security, health and sanitation. These movies have highlighted the need for policy change and the importance of public action to address such issues.

Indian cinema has played a significant role in promoting public health awareness and education in India. Movies have been used as a medium to educate the masses on various health issues such as HIV/AIDS, mental health, neurological conditions like tics and disability.^[4-6] Indian cinema also serves as a platform for health campaigns and public health messaging, where filmmakers collaborate with health organizations to create awareness on pressing health issues.

One of the most significant contributions of Indian cinema to public health has been the way it has tackled social stigmas around certain health issues. In a society where some of the health issues are still surrounded by taboos and myths, Indian movies have helped break barriers and create awareness. For instance, the movie “Padman” (2018) addressed the taboo around menstruation and promoted menstrual hygiene. Similarly, “Taare Zameen Par” (2007) tackled the stigma around learning disabilities and showcased how such disabilities can be managed and supported.

Indian cinema has also been instrumental in promoting the importance of health-seeking behavior. In many movies, characters are seen taking charge of their health and seeking medical care when necessary. This can be a powerful message for audiences, especially those from low socio-economic backgrounds who may not have access to healthcare services. Moreover, movies that depict the adverse consequences of unhealthy behaviors such as smoking, alcohol consumption,

and drug abuse can help deter such behavior and promote healthy lifestyles.^[7] By leveraging the power of storytelling, Indian cinema has the potential to create a significant impact on public health outcomes.

INDIAN MOVIES DEPICTING MEDICAL CONDITIONS

Indian cinema has produced several movies that have depicted medical conditions in a realistic and informative manner. These movies can be used as a valuable resource for medical education and training which has been depicted in Table 1.

For instance, we have tried to explore some of the Indian movies that have shown medical conditions in an accurate and informative manner.

Table 1: Some of the Indian movies that have shown medical conditions are listed in the table below

Year	Movie title	Medical condition
1960	<i>Anuradha</i>	Tuberculosis
1962	<i>Devdas</i>	Alcoholism
1971	<i>Anand</i>	Lymphosarcoma
1982	<i>Namak Halaal</i>	Epilepsy
1983	<i>Arth</i>	Depression
1987	<i>Ijaazat</i>	Schizophrenia
1991	<i>Sadak</i>	Depression
1992	<i>Khiladi</i>	Amnesia
1998	<i>Dushman</i>	Split personality disorder
1999	<i>Mann</i>	Heart disease
2001	<i>Lagaan</i>	Dysentery
2003	<i>Kal Ho Na Ho</i>	Cancer
2004	<i>Black</i>	Alzheimer's disease
2005	<i>Page 3</i>	Substance abuse
2006	<i>Lage Raho Munna Bhai</i>	Mental health
2007	<i>Taare Zameen Par</i>	Dyslexia
2008	<i>Ghajini</i>	Anterograde amnesia
2009	<i>Paa</i>	Progeria
2010	<i>My Name is Khan</i>	Autism
2010	<i>Guzaarish</i>	Quadriplegia
2010	<i>Udaan</i>	Asthma
2012	<i>Barfi</i>	Autism
2014	<i>Mary Kom</i>	Asthma
2014	<i>Margarita with a Straw</i>	Cerebral palsy
2016	<i>Pink</i>	Sexual assault
2017	<i>Toilet: Ek Prem Katha</i>	Sanitation
2018	<i>Padman</i>	Menstrual hygiene
2019	<i>Article 15</i>	Healthcare disparities
2019	<i>Mardaani 2</i>	Rape trauma syndrome
2019	<i>Good Newwz</i>	Infertility
2021	<i>Sherni</i>	Man-animal conflict
2022	<i>Jersey</i>	Heart transplant

Note: This list is not exhaustive, and there may be other movies that depict medical conditions that are not included in this list. Additionally, some movies may depict medical conditions inaccurately or with creative license, and it is important to critically evaluate the medical information presented in movies

Anand (1971): *Anand* is a classic Bollywood movie that tells the story of a terminally ill man named Anand Sehgal, who is suffering from lymphosarcoma of the intestine. The movie highlights the importance of living one's life to the fullest and cherishing every moment. It also sheds light on the emotional and psychological impact of a life-threatening illness on the patient and his loved ones. The movie features Rajesh Khanna and Amitabh Bachchan in the lead roles and is directed by Hrishikesh Mukherjee.

Black (2005): *Black* is a critically acclaimed Bollywood movie that tells the story of a deaf-blind girl named Michelle McNally. The movie depicts the challenges faced by Michelle and her teacher, Debraj Sahai, who is diagnosed with Alzheimer's disease, as they try to communicate and connect with each other despite Michelle's disabilities and Debraj's progressive memory loss. The movie features Rani Mukherji and Amitabh Bachchan in the lead roles and is directed by Sanjay Leela Bhansali.

Guzaarish (2010): *Guzaarish* is a poignant Bollywood movie that tells the story of a famous magician named Ethan Mascarenhas, who becomes quadriplegic after a tragic accident. The movie explores the themes of life, death, and the right to dignity in the face of disability. It also highlights the challenges faced by people with disabilities and the need for empathy and understanding. The movie features Hrithik Roshan and Aishwarya Rai Bachchan in the lead roles and is directed by Sanjay Leela Bhansali.

My Name is Khan (2010): *My Name is Khan* is a Bollywood movie that tells the story of an Indian Muslim man named Rizwan Khan, who is diagnosed with Asperger's syndrome, a form of autistic disorder. The movie explores the challenges faced by Rizwan as he tries to navigate social interactions and relationships in a world that is often unforgiving and prejudiced. The movie features Shah Rukh Khan and Kajol in the lead roles and is directed by Karan Johar.

Cinema medicine has several benefits in medical education. It provides a visual and interactive learning experience that can engage and motivate learners. It also helps learners to develop empathy and understanding toward patients with various medical conditions. Cinema medicine can also be used to reinforce clinical concepts and to highlight the social and emotional aspects of healthcare. While cinema medicine has many benefits, it also has some challenges. One of the main challenges is the accuracy and authenticity of the medical information presented in the movies. Some movies may exaggerate or distort medical conditions for dramatic effect, which can be misleading or harmful. Another challenge is the potential for stigma and stereotypes toward certain medical conditions or patient groups.

Indian cinema has played a significant role in promoting health awareness and education in India. Many Indian movies have addressed social and health issues, such as HIV/AIDS, mental health, and disability. Indian cinema has also been used as a

platform for health campaigns and public health messaging. For example, the movie "Padman" (2018) addressed the taboo around menstruation and promoted menstrual hygiene.

INCORPORATING CINEMA MEDICINE IN MEDICAL EDUCATION

Cinema medicine can be incorporated in medical education in various ways. One approach is to use movies and television shows as case studies or discussion topics in lectures or seminars. Another approach is to organize film screenings or movie clubs for students to watch and discuss relevant movies. In past, cinema medicine has been used to teach psychosocial aspects of medicine to students and the results have been very convincing.^[8-12] The other aspects of cinema medicine should also be explored for a better understanding of medical education in the medical curriculum.^[13,14] Cinema medicine is the integration of cinema and medical education, where movies are used as a teaching tool to impart knowledge about medical conditions, disease management, and healthcare delivery.^[15,16] This approach has gained popularity in recent years and has been used in various medical schools around the world.^[17-19] Incorporating cinema medicine into the MBBS curriculum can have both advantages and disadvantages. Based on the experts' opinions and literature review, we have discussed the strengths, weaknesses opportunities, and threats analysis of cinema medicine in the MBBS curriculum of India in Figure 1.

STRENGTHS

1. Engaging and effective: Cinema medicine can be a more engaging and effective way of teaching medical concepts as compared to traditional lectures and textbooks. Watching movies can help students understand complex medical conditions, their symptoms, and treatments.
2. Emotional impact: Movies have the ability to create an emotional impact on the viewers, which can help in improving empathy toward patients and their families. It can help students understand the psychosocial aspects of healthcare and how to provide holistic care to patients.
3. Real-life scenarios: Cinema medicine can expose students to real-life scenarios and challenges that healthcare professionals face. It can help them develop critical thinking and problem-solving skills, which are essential for providing quality care to patients.

Strengths <ul style="list-style-type: none"> • Engaging and effective • Emotional impact • Real-life scenarios 	Opportunities <ul style="list-style-type: none"> • Innovative teaching • Multidisciplinary approach • Technology integration • Integration in formal education
Weaknesses <ul style="list-style-type: none"> • Inaccuracy • Time-consuming • Cost 	Threats <ul style="list-style-type: none"> • Resistance to change • Copyright issues • Negative impact

Figure 1: SWOT analysis of cinema medicine in MBBS curriculum

WEAKNESSES

1. Inaccuracy: Movies may not always depict medical conditions accurately, and this can lead to misconceptions and confusion among students. It is important to critically evaluate the information presented in movies and supplement it with evidence-based knowledge.
2. Time-consuming: Incorporating cinema medicine into the MBBS curriculum can be time-consuming as it requires screening and analyzing movies. This can be challenging for medical schools that already have a packed curriculum.
3. Cost: Screening and licensing fees for movies can be expensive, and this can be a financial burden for medical schools.

OPPORTUNITIES

1. Innovative teaching: Cinema medicine offers an innovative way of teaching medical concepts that can engage and motivate students.
2. Multidisciplinary approach: Movies can be used to teach not only medical concepts but also ethics, communication, and cultural competence. This can help in developing well-rounded healthcare professionals.
3. Technology integration: Cinema medicine can be integrated with technology, such as virtual reality, to create a more immersive and interactive learning experience for students.
4. Inculcating particular kind of movies into formal education at the graduation level is expected to increase the production of such movies of interest. This will bring even much lesser talked about topics in the social realm, which will ultimately contribute to better doctor–patient relationships.

THREATS

1. Resistance to change: Integrating cinema medicine into the MBBS curriculum may face resistance from faculty and students who are accustomed to traditional teaching methods.
2. Copyright issues: Screening and using copyrighted movies in the classroom can lead to legal issues and financial penalties.
3. Negative impact: Movies can have a negative impact on students if they are not used appropriately. Movies that depict medical conditions inaccurately or in a sensationalized manner can lead to confusion and misconceptions among students.

WAY FORWARD

The strengths and opportunities need to be further evaluated and unmasked threats and weaknesses can be brought forth only when cinema medicine is introduced in piloted manner in medical institutes. For this, the National Medical Council (NMC) shall play a pivotal role.

Cinemedicine can be introduced in a phased manner, starting from specialized participants to volunteers and then formal introduction in the curriculum for all. This should be backed up by checks and tools to analyze the efficacy of this relatively novel method of teaching and learning as well. Since students will be one of the stakeholders themselves, each movie session should be preceded by a brief explanation of what to expect and followed by group discussions to bring into commonplace various dimensions of their thoughts. There will also be need of teachers and moderators, motivated to conduct such sessions. With the introduction of AETCOM in competency-based medical education; mainly to inculcate ethics and communication skills, cinema may find a relevant place in medical education. But it should not be limited to this domain of learning but extension to the core of learning medicine is the future prospect of cine medicine.

This is expected to encourage teachers to take up cinemedicine as a topic of their research and generate newer ideas to implement. Also keeping in mind that since India is a separate identity altogether, one is free to take cognizance from studies in the West, but always work on ways well suited for Indian scenarios. In conclusion, cinema medicine can be a useful and innovative teaching tool in the MBBS curriculum. However, it is important to critically evaluate the movies used and supplement them with evidence-based knowledge. Medical schools should also consider the cost and time implications of incorporating cinema medicine into their curriculum.

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Conflicts of interest

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