

## ORIGINAL ARTICLE

## Assessment of effectiveness of Cinemeducation as a tool to impart communication skills among the MBBS 1st Professional students

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### Abstract

**Background:** Improvements in healthcare providers' communication skills have been linked to more effective healthcare delivery, improved patient compliance, better patient and provider satisfaction, and fewer lawsuits. Cinemeducation is a relatively new method of medical education where movies or movie clips are used to stimulate discussions and reflections, which is a part of an active learning process. Hence, the present study was undertaken. **Methods:** We conducted an educational research, mixed method study among the MBBS 1st Professional students. A pre & post test to assess the knowledge and attitude of the students about the importance of communication skills in doctor-patient relationship. Students wrote the reflection and feedback after watching the movie clip. Quantitative analysis was done using paired t test by SPSS v. 20. Qualitative data analysis was done by two investigators independently. **Results:** The pre & post test for knowledge was statistically significant while communication skill attitude scale score for both positive & negative was not significant. **Conclusion:** The student's knowledge improved significantly after the sessions on communication skills, while negligible change in attitude was observed. Reflective writing by the students shows that cinemeducation can be used as one of the tool for teaching communication skills to the medical students.

### Keywords

Cinemeducation; Communication Skills; Attitude; Medical Students; Assessment

### Introduction

Having good communication skills is important in the medical field. It helps to gather the information from the patient, to reach the diagnosis and hence treatment of the patient. It is beneficial for both the patient and physician to have good doctor patient communication and hence the relationship. For patient, it includes allaying the anxiety and fear, increased satisfaction, compliance, better health outcome, fewer referral. For the physician also, it includes increased satisfaction, reduce fear of physical and verbal abuse, malpractice claims & litigations. (1)

Though communication skills were learned by the medical students, as the hidden curriculum by observing their

teachers & peers no formal training regarding the same was given. (2) Recognizing its importance in medical encounters, the National Medical Commission (erstwhile, Medical Council of India) has introduced the Attitude Ethics Communication (AETCOM) module in the new curriculum of Medical Education to be taught in a phased manner. (3)

Different methods like interactive lectures, role play, standardized patients and movies have been used either alone or in combination to teach this skill. (4) Cinemeducation is the use of movies or movie clip in medical education. The term was originally coined in 1994 by Alexander et al. (5) It is an emerging learning tool to teach the students about essential values of medical profession. (6) It is considered to be an effective way to

reach the affective domain of the people, promoting reflective attitudes, and link learning to experiences. (7) It has been used in various medical subjects, like psychiatry, pharmacology, pediatrics, microbiology, general medicine, family medicine & issues like professionalism, bioethics, doctor-patient relationship etc. (8)

### Aims & Objectives

1. The knowledge about communication skills.
2. The attitude towards communication skills training.
3. The effectiveness of movie/cine clip as a teaching aid for imparting communication skills.

### Material & Methods

**Study Type:** Educational research, mixed method study.  
**Study Population:** MBBS 1st Professional students.  
**Study Area:** State Government Medical College, Uttarakhand.  
**Study Duration:** November 2020 – July 2021.  
**Inclusion Criteria:** MBBS 1<sup>st</sup> Prof. students who were present in all the sessions and complete all the activities required.  
**Exclusion criteria:** Not taking part in all the activities.  
**Strategy for collection:** The validated questionnaire consisting of Multiple-Choice Questions (MCQs) and True & False were administered in the google forms as pre-test to assess the knowledge of the students regarding communication in healthcare, its principle and the importance of communication skills in doctor-patient relationship. Similarly, a previously validated Communication Skills Attitude Scale (CSAS) developed by Rees CE et al (9) was also administered as pre-test to assess the attitude of the medical students. It was followed by interactive teaching learning sessions on the same topic followed by a post-test consisting of similar questions to assess the knowledge.

We also took a class on reflective writing, followed by screening of movie clip of a Bollywood movie, 'Waiting'. Before screening it, we had briefed the students that they had to keenly observe the communication between the doctor & patient's relative. How the doctor has broken the bad news to the patient's relative & what were the reaction of the patient's relative while watching the movie clip?

This was followed by discussion and post-test to assess the attitude. The students were asked to write their reflection on the movie clip. Also, they were asked to give their feedback on the whole process of interactive teaching learning classes and movie clip session for teaching communication skills.

**Data analysis:** The data collected was analyzed by SPSS v.20. The pre and post test on knowledge and attitude about communication skill was analyzed using paired t-test ( $p$  value < 0.05 was considered to be significant). The reflections written by the medical students were coded by the two investigators independently and qualitative (content & thematic) analysis of the reflections were done by them till the data saturation.

**Ethical Approval & Consent:** The ethical clearance was obtained from the Institutional Ethics Committee, prior to the commencement of the study. (Letter N. MC/IEC/2020-148 dated 29/12/2020) Since the questionnaire was administered through Google forms, students were informed in the opening section, about the purpose of the study. It was clearly mentioned in it to the students that their participation was voluntary and the information provided by them will be used for medical education research while keeping anonymity. Also, that their non-response would not have any bearing on their academic performance evaluation. Hence, the participation in the study was considered as implied consent. (Figure 1)

### Results

Of the total 125 students, 96.8% (121) took part in the entire process. 57% (69) of the students were female. The knowledge of the students increased after the sessions on communication skills, and this was found to be statistically significant ( $p=0.0001$ ) (Table 1). It was observed that while the positive attitude of the medical students slightly declines. the negative attitude rose negligibly when measured on the Communication Skills Attitude Scale (CSAS) before and after communication skills training sessions. The difference was not found to be statistically significant. (PAS score  $p=0.182$  and NAS score  $p=0.297$ ) (Table 2). Overall, Mean  $\pm$  SD in Pre & Post test, PAS score was  $4.11 \pm 0.81$  and  $4.06 \pm 0.91$  respectively (Table 3). Overall, Mean  $\pm$  SD in Pre & Post test, NAS score was  $2.56 \pm 0.90$  and  $2.59 \pm 0.99$  respectively (Table 4). The reflections of the students after watching the movie clip from the Bollywood movie, "Waiting" were compiled and presented in the Gibb's cycle (Figure 2). Some of the student's reflection, are also mentioned as verbatim below.

#### Verbatim

"The doctor is informing the patient's husband that his wife is going to die & he should stop wasting money on her treatment because it is of no use. This news disheartened the man but the doctor's, "I do not care behavior" really irks me. "

"I felt how hard would it be for a middle-class family to afford such expenses and it would not be easy for someone to give up on a person so close."

"The patient is understandably emotional & reluctant to let his wife go. The doctor on the contrary is unempathetic & dismisses the hopes of a spontaneous miraculous recovery bluntly."

"How could a doctor understand the feeling of a man whose wife is been on a life support for so long. He is in hope that one day his wife would return, talk & live with him. Everyday this thinking gives him new energy. On the other hand, how could man understand the perspective of an honest doctor whose only concern is the man who is suffering. The doctor is worried if the man's wife died, he would lose all his hope & even money, which he has saved

for his last days.” The feedback given by the students shows that the sessions on communication skills training were useful for them (Figure 3).

## Discussion

According to Kaufman DM et al, (10) there are three challenges in communication skills training, that need to be addressed. Medical students need to have the knowledge of communication skills, developing a positive attitude towards communication skills; and to be trained to command a repertoire of specific communication skills in their daily practice.

In the present study, there was increase in the post test knowledge score of the medical students and this difference between pre & post-test knowledge score was statistically significant. There was decline in the positive attitude to learning communication skills (PAS) while negligible difference was seen in negative attitude (NAS) when measured on CSAS, before & after the communication skills sessions. This difference was not statistically significant.

Dave J et al also observed increase in the post-test knowledge score, which was statistically significant to pre-test score. (11)

Previous studies by Rees CE et al, (12) Harlak H et al (13) have pointed out that medical students’ positive attitudes declined when measured on the CSAS before and after training in communication skills. Morris M et al (14) in his longitudinal approach study also observed that positive attitude decrease & this change was statistically significant while negative attitude has negligible change over the years, from the pre-test score. According to Koponen J et al, (15) students’ positive attitudes to learning communication skills increased significantly and their negative attitudes decreased significantly between the beginning and end of the course. They attributed it to the integration of this skill to clinical context, since the students were exposed to doctor-patient communication at health centers, soon after the training. These variations observed in the attitude of the medical students towards learning communication skills may be due to different methods involved in teaching & learning of the skills, duration for which this course was carried over, year in which medical students were studying when communication skills training was given to them.

In the present study, students wrote their reflections after observing the movie clip focusing on the communication between doctor & patient’s relative.

Klemenc-Ketis Z et al (16) screened the Hollywood movie, ‘Wit’ to teach professionalism to fourth year medical students. They observed that the students were able to appreciate the importance of communication, empathy, doctors’ personal interests and palliative care therapy shown in the movie.

Lumlertgul N et al (17) reported that the medical students became aware of the ethical issues like doctor–patient

relationship, importance of informed consent during clinical trials in patients, management of genetic disorders, patient management, brain death and organ transplantation involved in the medical professionalism through the five films screened for them.

Shankar PR et al (18) screened the Hollywood movies, ‘Wit’ and ‘People will talk’ for the first-year medical students to learn different aspects in medical humanities, like issues of death, dying, mortality, morbidity, empathy and professionalism.

Kadivar M et al (19) observed that Cinemedicine provides the opportunity for medical students to learn humanity and psychosocial aspects of medicine.

Patel PP et al (20) showed movie clip from ‘Wit and ‘Munnabhai MBBS’ movies to the students. Students were able to understand the importance of informed consent in a clinical trial, respect for colleagues and patients, empathy towards patients and giving complete information to them.

Shevell AH et al (21) reported that the students understood that an effective communication is critical for the doctor-patient relationship and it’s important to listen patients and their families.

According to Blasco PG, (22) using literature and movies while teaching is useful and enjoyable. It effectively stimulated reflection on the personal and professional attitudes and values of medical students.

Law M et al, (23) commented that utilizing television shows and movies to evoke emotions among the trainees stimulates their own awareness and make them more empathetic towards patients, which play an important role in doctor-patient communication.

## Conclusion

The student’s knowledge improved significantly after the sessions on communication skills. There was negligible change in attitude of undergraduate medical students before and after the sessions on communication skills. Reflections of the students after viewing the movie clip on communication between the doctor & the patient’s relative shows that Cinemeducation can be used as one of the tool for teaching communication skills to the medical students.

## Recommendation

Cinemeducation been used in medical field mostly in the West setting. It can be also be implemented in our Indian scenario as an innovative teaching learning method to break the monotony of traditional lecture and arouse the interest of our medical students.

## Limitation of the study

The show how level of communication skills by Kalamazoo scale (24) could not be assessed since COVID 19 related restrictions did not permit the physical presence of the students for long. Data were collected from only the first-year medical students of only one medical college.

**Relevance of the study**

The longitudinal study can be done on the same group of students to observe the long-term effects of this method, like the workplace base assessment can be done on these students when they enter final year or internship. Interventional study can also be performed and comparison between effect of only theoretical teaching-learning and different experiential methods of teaching-learning communication skills can be assessed.

**Authors Contribution**

JB: Concept, Design, Definition of Intellectual Content, Literature Search, Data acquisition, Data analysis, Statistical analysis, Manuscript preparation, Manuscript editing, Manuscript review and Guarantor. MS: Concept, Design, Data analysis, Statistical analysis, Manuscript editing and Manuscript review.

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**Tables**

**TABLE 1: KNOWLEDGE OF MBBS 1ST PROFESSIONAL STUDENTS (N=121) BEFORE & AFTER THE COMMUNICATION SKILLS SESSIONS**

Knowledge	Pre test	Post test
Mean	12.19	13.43
SD	2.62	3.59
Paired T Test (one tailed )	0.001	

**TABLE 2: POSITIVE & NEGATIVE SCORE OF MBBS 1ST PROFESSIONAL STUDENTS (N=121) ON CSAS BEFORE & AFTER THE COMMUNICATION SKILLS SESSION**

CSAS	Pre test	Post test	Pre test	Post test
	PAS score		NAS score	
Mean	53.46	52.73	33.33	33.66
SD	6.15	7.33	4.43	6.23
Paired T Test (one tailed )	0.182		0.297	

**TABLE 3: POSITIVE ATTITUDE SCORE AMONG THE STUDENTS BEFORE & AFTER THE SESSIONS ON COMMUNICATION SKILLS**

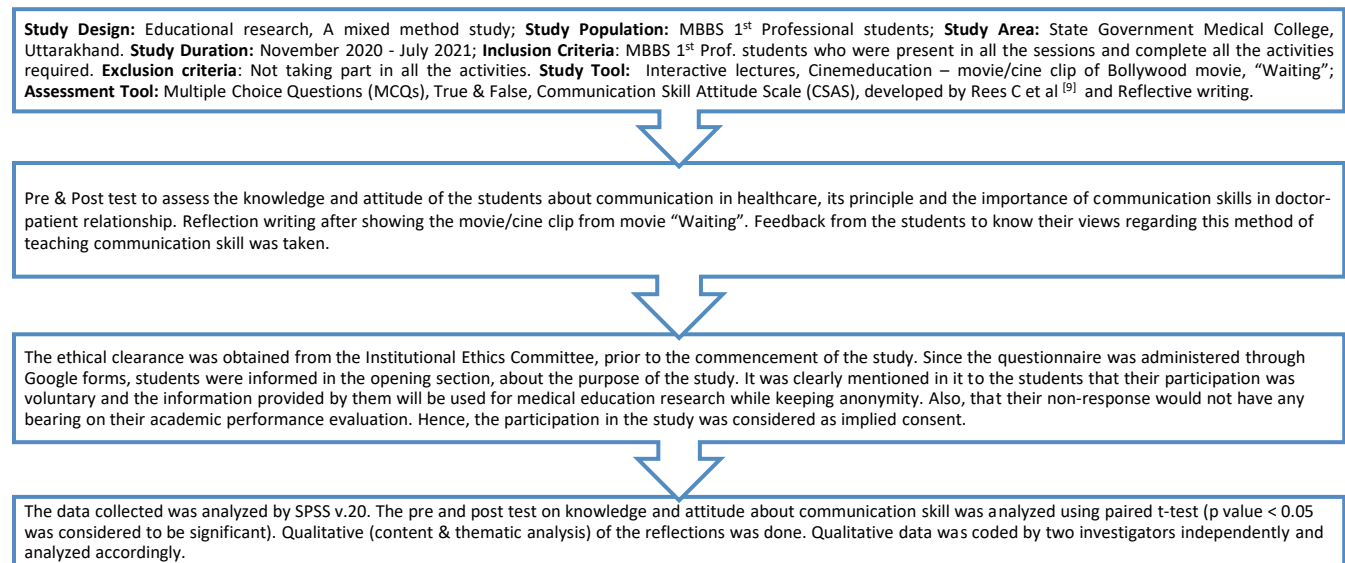
Item No.	Positive Attitude Scale (PAS)	Pre-Test		Post Test	
		Mean	SD	Mean	SD
1	Must have good communication skills.	4.69	0.66	4.45	1.15
4	Developing communication skills as important as knowledge of medicine.	4.17	0.98	4.21	1.03
5	Learning communication skills has helped or will help me respect patients.	4.31	0.88	4.32	0.81
7	Learning communication skills is interesting.	4.07	0.78	4.03	0.81
9	Learning communication skills has helped or will help facilitate my team-working skills.	4.49	0.75	4.33	0.85
10	Learning communication skills has improved my ability to communicate with patients	4.44	0.64	4.32	0.96
12	Learning communication skills is fun.	3.71	0.84	3.77	0.91
14	Learning communication skills has helped or will help me respect my colleagues.	4.17	0.78	4.12	0.83
16	Learning communication skills has helped or will help me recognize patients' rights regarding confidentiality and informed consent	4.08	0.76	3.99	0.93
17	Communication skills teaching would have a better image if it sounded more like a science subject.	3.06	1.07	2.93	1.01
21	I think it's really useful learning communication skills on the medical degree.	4.24	0.80	4.18	0.90
23	Learning communication skills is applicable to learning medicine.	3.67	0.82	3.72	0.86
25	Learning communication skills is important because my ability to communicate is a lifelong skill.	4.36	0.82	4.36	0.74
<b>Total</b>		<b>4.11</b>	<b>0.81</b>	<b>4.06</b>	<b>0.91</b>

**TABLE 4: NEGATIVE ATTITUDE SCORE AMONG THE STUDENTS BEFORE & AFTER THE SESSIONS ON COMMUNICATION SKILLS**

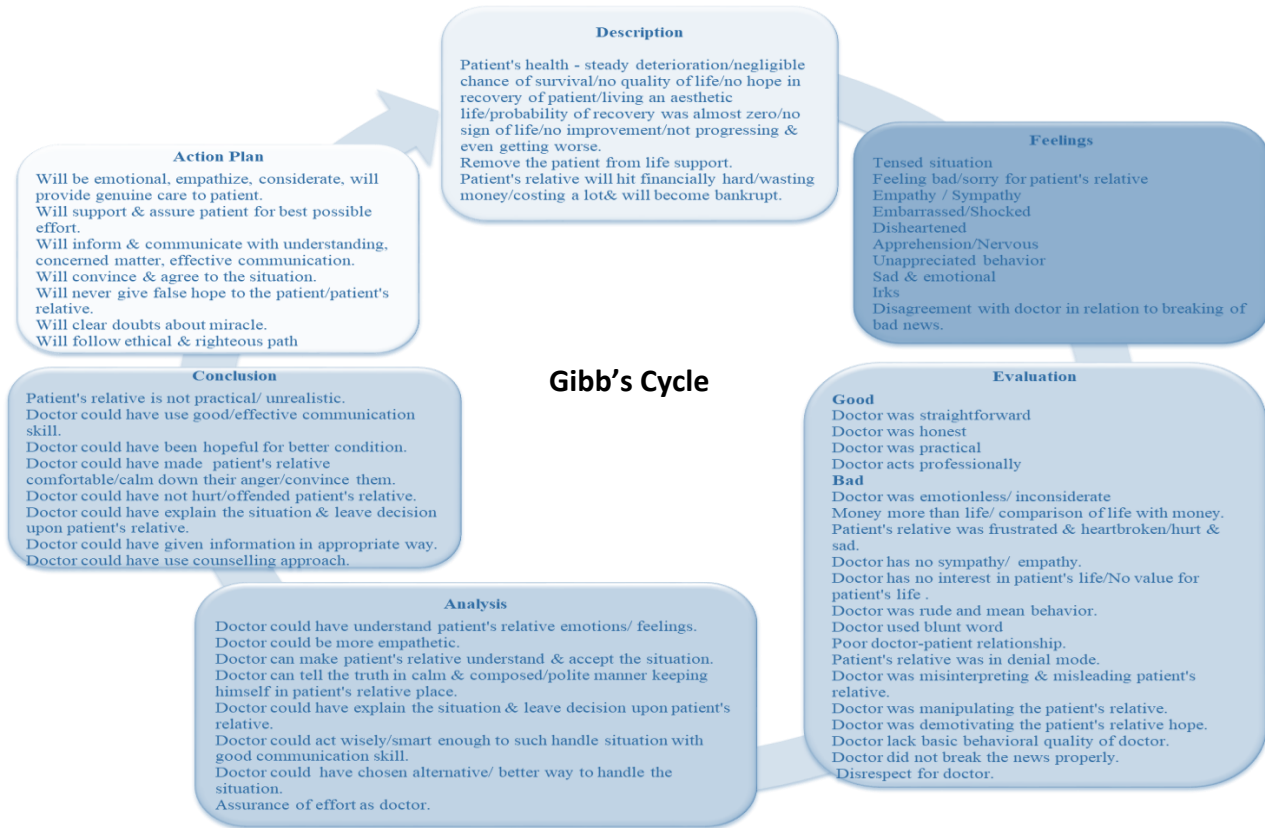
Item No.	Negative Attitude Scale (NAS)	Pre-Test		Post Test	
		Mean	SD	Mean	SD
2	No point in learning communication skills.	1.54	0.75	1.64	0.84
3	Nobody will fail in medical for having poor communication skills.	2.97	0.91	2.81	1.06
6	No time to learn communication skills.	2.51	0.98	2.45	1.02
8	Did not bother to turn up to communication skills sessions.	2.98	1.11	2.90	1.18
11	Communication skills teaching states the obvious and then complicates it.	2.47	0.91	2.56	1.06
13	Learning communication skills is too easy.	2.74	0.83	2.91	0.93
15	Difficult to trust information about communication skills given by nonclinical lecturers.	2.31	0.96	2.48	0.91
18	In medicine, its good idea to learn communication skills.	3.93	0.85	3.88	0.94
19	Do not need good communication skills to be a doctor.	1.57	0.64	1.87	1.11
20	Hard to admit to have some problems with communication skills.	2.81	0.88	2.82	0.88
22	Ability to pass exams will get through medical rather than ability to communicate.	3.22	1.08	2.93	1.10
24	I find it difficult to take communication skills learning seriously.	2.49	0.91	2.54	0.94
26	Communication skills learning should be left to psychology students, not medical student.	1.78	0.85	1.88	0.95
<b>Total</b>		<b>2.56</b>	<b>0.90</b>	<b>2.59</b>	<b>0.99</b>

**Figures**

**FIGURE 1: FLOW CHART**



**FIGURE 2: SHOWS THE REFLECTIONS OF THE STUDENTS ON HOW THE DOCTORS COMMUNICATES THE BAD NEWS TO THE PATIENT’S RELATIVE**



**FIGURE 3: FEEDBACK FROM STUDENTS REGARDING COMMUNICATION SKILLS SESSIONS (N=121)**

