International Journal of Pharmacy and Pharmaceutical Sciences

Print ISSN: 2656-0097 | Online ISSN: 0975-1491 Vol 17, Issue 12, 2025

Original Article

COMPARATIVE ANALYSIS OF MEDICAL STUDENTS' PERCEPTIONS OF ATTITUDES, ETHICS AND COMMUNICATION (AETCOM) TRAINING: ROLE-PLAY VERSUS SIMULATED PATIENTS

POONGAVI V., MANASA M. R., SWETHA K., ATHULYA KANNAN*

Department of Pharmacology, Karwar Institute of Medical Sciences, Rajiv Gandhi university of Health Sciences, Karwar-581301, Karnataka, India

***Corresponding author: Athulya Kannan; *Email: drathulyakannan@gmail.com**

Received: 30 Aug 2025, Revised and Accepted: 02 Oct 2025

ABSTRACT

Objective: To evaluate medical students' perceptions of learning AETCOM through role plays and simulated patients, as well as their attitudes towards communication skills learning.

Methods: We conducted this prospective study after obtaining ethical approval. The second year MBBS students' attitude towards communication skills learning was assessed using rees and Sheard'spre validated 26 item questionnaire on Communication Skills Attitude Scale (CSAS). It includes 13 positive and 13 negative statements, which were scored using 5 point Likert scale. The students were taught AETCOM module using two teaching methods – role plays and simulated patients. Then their perception towards learning communication by these methods was assessed.

Results: There were 143 study participants-74 males and 69 females. The mean age of the participants was 19.2 y. For positive attitude, the mean score was 55.7±8.7, while for negative attitude was 33 ±12.4. mean perception scores were significantly higher for teaching communication skills using simulated patients (48.8±5.3) compared to role plays (46.5±5.2) {$p<0.05$}.

Conclusion: Higher scores for positive attitude and lower scores for negative attitude imply that medical students possess stronger positive attitude for learning AETCOM (communication skills). The medical students preferred learning communication skills using simulated patients rather than role plays.

Keywords: AETCOM, Role play, Simulated patients, CSAS scale, Communication skills

DOI: https://dx.doi.org/10.22159/ijpps.2025v17i12.56709 Journal homepage: https://innovareacademics.in/journals/index.php/ijpps

INTRODUCTION

Communication is the cornerstone of successful healthcare delivery in the current era. Doctors' strong communication skills can help address patients' emotional needs, reduce anxiety and empower them to take an active role in their care [1]. The essential elements of effective physician-patient communication are fostering relationships, doctor-patient exchange of information, expressing empathy, involving patients in decision making and addressing the management of complex situations [2]. Many complaints against doctors arise from misunderstandings or lack of clear communication rather than actual clinical errors. When patients feel their concerns are not heard or understood, it can lead to frustration and mistrust, sometimes escalating to malpractice allegations [3].

Communication skills, including bedside manner and history-taking, are increasingly recognized as learnable and teachable skills [4]. Attitude is a significant factor influencing behavior and understanding it can lead to better insights into behavioral patterns in a population [5]. Training in communication can be a valuable investment for healthcare professionals, ultimately benefiting both patients and doctors. Incorporating good communication skills as a competency in the competency-based medical education (CBME) curriculum is a significant step forward. The AETCOM (Attitude, EThics and COM munication) module introduced in the medical curriculum from 2019 emphasizes the importance of communication in medical practice. Hence it is crucial to evaluate the medical students' attitudes for learning communication skills [6].

Traditionally, most medical trainees acquired communication skills by observing their teachers and preceptors as role models. However, learners should be provided with opportunities to practice communication in positive and supportive environments [7]. Currently, communication is taught using methods like case vignettes, video clips, story-telling (patients/caregivers/doctors), simulated patients, guest lectures, ward rounds (with multiple checklist), role play etc [8].

Role-playing is an experiential learning technique in which participants adopt and act out characters within simulated, yet realistic, scenarios. This method immerses individuals in active experiences, enhancing their understanding and skill development by allowing them to explore different perspectives and practice decision-making in a controlled environment [9]. Simulated patients (SPs) are individuals trained to simulate real patients by accurately portraying specific medical conditions, including associated symptoms and social contexts. This training enables them to provide consistent and realistic scenarios for medical education and assessment [10].

Despite the growing demand for research in medical education, there is a relative lack of studies comparing the effectiveness of simulated patients (SPs) versus role-play to teach MBBS students about clinical communication [11]."Therefore, we planned this study to evaluate medical students' attitudes towards learning communication skills and their perceptions about learning AETCOM through role plays versus simulated patients."

MATERIALS AND METHODS

This was a prospective questionnaire – based study conducted from June 2024 to August 2024 in the Department of Pharmacology after ethical clearance (Ref. No: IEC/KRIMS/O/16/2024-25). The study methodology was explained to the second-year MBBS students. After obtaining written informed consent, we included 143 students. All the MBBS phase II students, who gave written informed consent, were included in the study.

First, we evaluated the students' attitude towards communication skills learning with Communication Skills Attitude Scale (CSAS). It is a pre-validated and widely used scale which was developed by Rees and Sheard [12]. It is a 26 item questionnaire consisting of two subscales with 13 questions each for Positive Attitude (PAS) and Negative Attitude (NAS). The question numbers pertaining to

positive attitude were 1, 4, 5, 7, 9, 10, 12, 14, 16, 18, 21, 23, 25 and for negative attitude were 2, 3, 6, 8, 11, 13, 15, 17, 19, 20, 22, 24 and 26. The responses for all questions were collected using 5-point Likert scale. Questions with positive and negative attitudes were scored as follows: 5 points-Strongly agree, 4 points-Agree, 3 points-Neutral, 2 points-Disagree, 1 point-Strongly disagree. The score for Positive Attitude Scale (PAS) and the Negative Attitude Scale (NAS) have the same range of 13-65 and higher scores in either implies stronger positive or negative attitude, respectively.

Then, the participants were taught AETCOM module-2.1 – "The foundation of communication-2" using two teaching methods – role plays and simulated patients. The role plays were done by students who were trained by the investigators. Two role plays were performed-in the first role play, students demonstrated a poor doctor-patient communication which was followed by a role play demonstrating an ideal doctor-patient communication. Hence the difference between a poor and ideal communication was demonstrated. For the session with simulated patients, the postgraduate students were trained to depict five different patient scenarios. Student volunteers were given the role of doctors to interact with the simulated patients. The remaining students observed the interactions with the simulated patients.

The perceptions of the participants towards learning communication skills by these methods were assessed using a structured questionnaire consisting of 12 questions. Google forms were used to collect data about attitude and perception of participants towards learning communication skills.

Statistical analysis

The qualitative variables were analyzed using mean and SD. The students' perception was compared using the independent t test. P value<0.05 was considered significant.

RESULTS

In our study, there were 143 study participants-74 males and 69 females. The mean age of the participants was 19.2 y (table 1). For positive attitude, the mean score was 55.7±8.7, while for negative attitude was 33±12.4 (table 2). Higher scores for positive attitude and lower scores for negative attitude imply that medical students possess stronger positive attitude for communication skills learning.

Table 1: Demographic details of the study participants

Participants	Number (%)
Male	74 (52 %)
Female	69 (48%)
mean Age	19.2 y

Table 2: Communication skills attitude scale (CSAS) scores [12]

Positive attitude statements	Mean score±SD
1) In order to be a good doctor I must have good communication skills	4.8±0.5
4) Developing my communication skills is just as important as developing my knowledge of medicine	4.5±0.7
5) Learning communication skills has helped or will help me respect patients	4.4±0.6
7) Learning communication skills is interesting	4.1±0.8
9) Learning communication skills has helped or will help facilitate my team-working skills	4.4±0.6
10) Learning communication skills has improved my ability to communicate with patients	4.4±0.6
12) Learning communication skills is fun	3.8±0.9
14) Learning communication skills has helped or will help me respect my colleagues	4.2±0.6
16) Learning communication skills has helped or will help me recognise patients' rights regarding confidentiality and informed consent	4.3±0.7
18) When applying for medicine, I thought it was a really good idea to learn communication skills	4.0±0.8
21) I think it's really useful learning communication skills on the medical degree	4.3±0.6
23) Learning communication skills is applicable to learning medicine	4.1±0.7
25) Learning communication skills is important because my ability to communicate is a lifelong skill	4.4±0.6
Negative attitude statements	mean score±SD
2) I can't see the point in learning communication skills	2.0±0.9
3) Nobody is going to fail their medical degree for having poor communication skills	2.7±1.0
6) I haven't got time to learn communication skill	2.3±0.8
8) I can't be bothered to turn up to sessions on communication skills	2.7±1.0
11) Communication skills teaching states the obvious and then complicates it	2.8±1.0
13) Learning communication skills is too easy	3.1±1.0
15) I find it difficult to trust information about communication skills given to me by non-clinical lecturers	2.3±0.9
17)Communication skills teaching would have a better image if it sounded more like a science subject	3.1±1.1
19) I don't need good communication skills to be a doctor	1.7±0.9
20) I find it hard to admit to having some problems with my communication skills	3.0±0.9
22) My ability to pass exams will get me through medical school, rather than my ability to communicate	2.8±1.0
24) I find it difficult to take communication skills learning seriously	2.7±1.0
26) Communication skills learning should be left to psychology students, not medical students	1.8±0.9

The perception scores for learning communication skills by roleplay and simulated patients are represented in table 3. The difference in mean perception score for learning communication skills was statistically significant with simulated patients (48.8±5.3) compared to role plays (46.5±5.2) (p value<0.05) (table 4).

Table 3: Perception of study participants towards learning communication skills by role plays vs simulated patients

Perception questions	Role plays (Mean±SD)	Simulated patients (Mean±SD)
This method was engaging and improved my learning motivation.	4.2±0.5	4.4±0.5
This method created genuine interest in AETCOM.	3.9±0.7	4.4±0.7
This method resulted in better retention of topics.	4.1±0.7	4.3±0.6
This method was thought-provoking.	3.3±1.0	3.7±1.0
The method was interactive	4.3±0.6	4.4±0.6
This method helped to consolidate the concepts of vast topics.	3.9±0.7	4.0±0.7
This method was useful to improve my communication skill.	4.2±0.6	4.4±0.6
This method was time-consuming.	3.7±1.1	3.6±1.0
This method will boost my confidence as an Indian medical graduate	4.1±0.7	4.3±0.6
This teaching method was more informative	4.0±0.7	4.3±0.6
This method has enabled me to communicate effectively with patients	4.0±0.6	4.3±0.6
This method helped me develop empathy towards the patients	4.1±0.7	4.2±0.7

Table 4: Study participants' perception for role play vs simulated patients

Teaching method		N	Mean	SD	SE	Independent 't' test	p-value
Perception	Simulated patients	143	48.8	5.3	0.4	3.724	<0.001**
	Role play	143	46.5	5.2	0.4		

**Significant

DISCUSSION

Good communication skills are crucial in healthcare, benefiting patients, doctors, and the community. Effective clinical communication is associated with improved health outcomes. Respectful, honest, open and personalized communication alleviates patient anxiety. By engaging in effective communication with patients, families and caregivers, doctors can foster a shared understanding of goals, expectations and preferences [13].

The communication skills are not inherent but can be developed and enhanced through learning. As a result, communication skills training (CST) programs have become an essential part of medical curricula [14]. The current study was carried out to evaluate the perception of medical students to learn AETCOM through Role plays and Simulated Patients and to evaluate the medical students' attitude towards communication skills learning.

In this study, the second year MBBS students' attitude towards communication skills learning was assessed using Rees and Sheard's CSAS scale. This scale was created to assess the medical students' attitudes toward communication skills learning. This scale has been utilized in research across various medical schools. The items assess students' perceptions about how communication skills should be taught, the importance of strong communication for passing examination and becoming an ideal doctor and the role of communication in demonstrating respect towards patients [15].

In current study for positive attitude, the mean score was 55.7±8.7, while for negative attitude was 33±12.4 as per the CSAS scale. These results were consistent with the findings of V. K. Sreelatha *et al.*, who reported attitude scores of 54.19±5.99 and 33.42±5.27 for positive and negative attitudes, respectively [16]. Similar results were obtained by another study conducted in Saudi Arabia by Alotaibi FS *et al.* [17]. Another study by Asha Latha *et al.* showed similar results in which positive attitude scores were 52.34±6.03 and negative attitude scores 40.07±6.40 [18]. The stronger positive attitude scores suggest that medical students have greater inclination in learning communication skills. A more positive attitude among medical students toward communication skills learning may assist faculty in developing specialized curricula tailored to students' motivation and proficiency levels.

The students were taught communication skills using two teaching methods-roleplay and simulated patients and then the perception of students towards communication skills learning using these two methods were compared. We found that the students' preferred learning communication skills using simulated patients ($p<0.05$). Simulated patients have proven to be effective tools in both teaching and assessing key clinical competencies, including interviewing skills, counselling, physical examination techniques, the management of emotionally sensitive scenarios like delivering bad news or consoling distressed family members [19]. Simulation provides learners with a controlled environment in which they can develop clinical skills and gain insight from their errors without posing any risk to patient safety [20].

Students are exposed to unfamiliar persons and they may experience realistic and unbiased encounter. But using trained professional simulated patients can be costly [21]. However, this issue can be overcome by training postgraduate students, paramedical staff or clerical staff as simulated patients [8].

Roleplays can be an inexpensive alternative to simulated patients [22]. They allow individuals to practice communication in a safe and controlled environment. They help learners develop strong communication strategies [23]. However, volunteers' anxiety, preparation time and difficulties in providing authentic feedback are some of the drawbacks of roleplays [24].

CONCLUSION

Communication skills are not innate; they can be learned, developed and improved over time. This study highlights that medical students had a positive attitude towards learning communication skills, which are essential for effective clinical practice. They preferred simulated patients for learning communication skills rather than role plays. Simulated patients offer realistic, effective training, though role plays remain a valuable, low-cost alternative. Integrating both methods can enhance communication competencies essential for improved patient care and clinical outcomes.

ACKNOWLEDGMENT

We thank Mrs. Manjula M N, statistician, KRIMS, Karwar and Mr. Chaitanya Karant, Department of Pharmacology, KRIMS, Karwar for their help and support.

FUNDING

Nil

AUTHORS CONTRIBUTIONS

All authors have made significant contributions to the work's conception, design, data acquisition, analysis, or interpretation; drafting or critically revising for intellectual content; final approval of the version to be published; and accountability for all work aspects, ensuring integrity and resolving questions.

CONFLICT OF INTERESTS

Declared none

REFERENCES

1. Arneja I, Lal P. Communications skills training a missing link in medical education curriculum. MAMC J Med Sci. 2017;3(3):117-9. doi: 10.4103/mamcjms.mamcjms_70_17.
2. Australian commission on safety and quality in health care. Available from: https://www.safetyandquality.gov.au/. [Last accessed on 10 Nov 2024].
3. Silverman J, Kurtz SM, Draper J. Skills for communicating with patients. 2nd ed. Abingdon Oxon United Kingdom (UK): Radcliffe Medical Press; 1998.
4. Makoul G. Communication skills education in medical school and beyond. JAMA. 2003;289(1):93. doi: 10.1001/jama.289.1.93, PMID 12503986.
5. Petty RE, Wegener DT, Fabrigar LR. Attitudes and attitude change. Annu Rev Psychol. 1997;48:609-47. doi: 10.1146/annurev.psych.48.1.609, PMID 9046570.
6. Langille DB, Kaufman DM, Laidlaw TA, Sargeant J, MacLeod H. Faculty attitudes towards medical communication and their perceptions of students communication skills training at Dalhousie University. Med Educ. 2001 Jun;35(6):548-54. doi: 10.1046/j.1365-2923.2001.00921.x, PMID 11380857.
7. Al Odhayani A, Ratnapalan S. Teaching communication skills. Can Fam Physician. 2011 Oct;57(10):1216-8. PMID 21998240.
8. Shankar N, Fathima FN, Lakshmi TA. Assessment of attitudes ethics and communication skills in a competency-based undergraduate medical curriculum. SE Asian Jnl Med Educ. 2023;17(1):4-11. doi: 10.4038/seajme.v17i1.544.
9. Nestel D, Tierney T. Roleplay for medical students learning about communication: guidelines for maximising benefits. BMC Med Educ. 2007;7(1):3. doi: 10.1186/1472-6920-7-3, PMID 17335561.

10. Chavda N, Solanky P, Dhanani JV, Shah A, Patel N, Bhadiyadara S. Assessment of clinical communication skills of medical students through the simulated patient approach. J Med Educ. 2020;19(3):e108661. doi: 10.5812/jme.108661.
11. Gorski S, Prokop Dorner A, Pers M, Stalmach Przygoda A, Malecki L, Cebula G. The use of simulated patients is more effective than student role playing in fostering patient-centred attitudes during communication skills training: a mixed method study. BioMed Res Int. 2022 Dec 17;2022:1498692. doi: 10.1155/2022/1498692, PMID 36573197.
12. Rees C, Sheard C, Davies S. The development of a scale to measure medical students attitudes towards communication skills learning: the Communication Skills Attitude Scale (CSAS). Med Educ. 2002;36(2):141-7. doi: 10.1046/j.1365-2923.2002.01072.x, PMID 11869441.
13. Australian Commission on Safety and Quality in Health Care. Engaging patients in communication at transitions of care. Prepared by a consortium from Deakin and Griffith universities. Sydney: ACSQHC; 2015.
14. Silverman JD, Draper J, Kurtz SM. The inhumanity of medicine. Interpersonal and communication skills can be taught. BMJ. 1995;310(6978):527. doi: 10.1136/bmj.310.6978.527a, PMID 7755736.
15. Moral RR, Garcia De Leonardo C, Caballero Martinez F, Monge Martin D. Medical students attitudes toward communication skills learning: comparison between two groups with and without training. Adv Med Educ Pract. 2019 Feb 12;10:55-61. doi: 10.2147/AMEP.S182879, PMID 30858747.
16. Sreelatha VK, Manjula VD. A study to assess the attitude of medical students towards learning communication skills in a Teaching Hospital in Kerala. J Evol Med Dent Sci. 2021;10(38):3317-21. doi: 10.14260/jemds/2021/673.
17. Alotaibi FS, Alsaeedi A. Attitudes of medical students toward communication skills learning in Western Saudi Arabia. Saudi Med J. 2016;37(7):791-5. doi: 10.15537/smj.2016.7.14331, PMID 27381541.
18. Latha RA, Farhana MA, Sonia SS, Riyaz NM, Mallika BS. A study to assess the attitude of medical students towards learning communication skills in a Teaching Hospital in Andhra Pradesh. Int J Curr Pharm Res. 2024;16(1):59-62. doi: 10.22159/ijcpr.2024v16i1.4021.
19. Issenberg SB, McGaghie WC, Petrusa ER, Lee Gordon DL, Scalese RJ. Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review. Med Teach. 2005;27(1):10-28. doi: 10.1080/01421590500046924, PMID 16147767.
20. Cleland JA, Abe K, Rethans JJ. The use of simulated patients in medical education: AMEE Guide No 42. Med Teach. 2009;31(6):477-86. doi: 10.1080/01421590903002821, PMID 19811162.
21. Taylor S, Bobba S, Roome S, Ahmadzai M, Tran D, Vickers D. Simulated patient and role play methodologies for communication skills training in an undergraduate medical program: randomized crossover trial. Educ Health (Abingdon). 2018;31(1):10-6. doi: 10.4103/1357-6283.239040, PMID 30117467.
22. Kurtz SM, Silverman J, Draper J. Teaching and learning communication skills in medicine. 2nd ed. Abingdon: Radcliffe Medical Press; 2005. p. 363-5. doi: 10.1111/j.1369-7625.2005.00351.x.
23. Oliver D. Teaching medical learners to appreciate "difficult" patients. Can Fam Physician. 2011;57(4):506-8. PMID 21626902.
24. Joyner B, Young L. Teaching medical students using role play: twelve tips for successful role plays. Med Teach. 2006;28(3):225-9. doi: 10.1080/01421590600711252, PMID 16753719.