



RESEARCH ARTICLE

A Quasi-experimental Study to Evaluate the Attitudes of MBBS Students Towards Teaching and Learning Communication Skills at Tertiary Care Teaching Medical Institution in Uttarakhand

Richa Garg¹, Vikram Singh Dhapola², Preeti³, Dilip Chander Dhasmana⁴

ABSTRACT

Background: Communication is a fundamental clinical competency expected of Indian medical graduates and underpins high-quality patient care, therapeutic relationships, and patient safety. Historically, undergraduate medical training has provided limited structured instruction in communication, contributing to deficiencies in these skills among early-career doctors. This study examined undergraduate medical students' attitudes towards communication skills training and explored the influence of the Attitude, Ethics, and Communication (AETCOM) curriculum on these perceptions. **Methods:** A quasi-experimental survey was undertaken among 229 MBBS students. Attitudes towards communication skills learning were measured using the validated Communication Skills Attitude Scale (CSAS), which employs a five-point Likert response format to evaluate both favourable and unfavourable attitudes. Data were analysed using SPSS, with comparative analyses performed between students in the second and third years of the MBBS programme. **Results:** Total of 229 students participated in the study. Results showed high positive attitude scores, with mean values ranging from 4.69 to 4.84 for key items such as the importance of communication skills. The overall positive attitude score slightly decreased from 53.35 ± 5.0 (pre-test) to 52.47 ± 5.7 (post-test), while the third-year score was 52.89 ± 5.2 ($p > 0.05$). Negative attitude scores showed minimal variation: 43.65 ± 5.7 (pre-test), 42.7 ± 7.1 (post-test), and 42.96 ± 5.5 (third-year) ($p > 0.05$). **Conclusion:** Students demonstrated consistently positive attitudes, though no significant improvement was observed, highlighting the need for more engaging teaching approaches. Continuous reinforcement of communication skills training across all stages of undergraduate medical education, supplemented by focused educational interventions, is essential to foster an inclusive, supportive, and learner-centred educational environment.

Keywords: Communication Skills Attitude Scale (CSAS); Attitude, Ethics and Communication (AETCOM); positive attitude; negative attitude; undergraduate medical curriculum; doctor–patient relationship; medical students.

Indian J. Pharm. Biol. Res. (2026); <https://doi.org/10.30750/ijpbr.14.4.49>

INTRODUCTION

Virtuous communication is essential for quality delivery and outcomes of healthcare. Being a good communicator is one of the essential competencies required of an Indian Medical Graduate [1]. These skills can be taught and learned despite their complexities [2, 3]. Physicians must build an empathetic connection with patients for good history taking, which further lays the foundation for building patients' trust in their treating doctor. Ineffective communication negatively impacts medical care and puts the foundation of the doctor–patient relationship at stake. Effective communication is a core component of high-quality healthcare; however, it has traditionally received limited emphasis within undergraduate medical education. Consequently, many newly qualified doctors begin clinical practice without the communication competencies required for effective patient care. Inadequate communication by healthcare professionals may reduce patients' trust in their clinicians and lower satisfaction with the care they receive [4]. Furthermore, ineffective communication has been associated with an increased risk of medical errors,

threats to patient safety, and poorer adherence to recommended treatment [5, 6].

Evaluation of attitudes offers valuable insight into behavioural tendencies and their potential influence on future actions. Examining medical students' perceptions of communication skills training is therefore important, as these perceptions may shape the effectiveness of their interactions with patients during clinical practice [7]. The competency-based undergraduate medical curriculum (CBME) and the Attitude, Ethics and Communication (AETCOM) curriculum were introduced for MBBS batches admitted from the academic year 2019–20 onwards. The National Medical Commission (NMC) currently provides the competency-based undergraduate curriculum and AETCOM materials through its official undergraduate curriculum framework [1]. The AETCOM curriculum aims to develop competencies related to attitude, ethics, and communication and includes communication skills as an integral component of undergraduate medical education. However, evidence regarding changes in students' attitudes toward communication-skills education following AETCOM-based teaching remains limited.

¹Assistant Professor, Department of Pharmacology, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Dehradun, Uttarakhand, India

²Assistant Professor, Department of Pharmacology, Veer Chandra Singh Garhwali Government Institute of Medical Science and Research, Srinagar Garhwal, Uttarakhand, India

³Assistant Professor, Department of Community Medicine, Adesh Medical College & Hospital, Ambala, Haryana, India

⁴Professor, Department of Pharmacology, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Dehradun, Uttarakhand, India

Corresponding Author: Dr. Vikram Singh Dhapola, Assistant Professor, Department of Pharmacology, Veer Chandra Singh Garhwali Government Institute of Medical Science and Research, Srinagar Garhwal, Uttarakhand, India.

Email: drdhapola90@gmail.com

How to cite this article: Garg R, Dhapola VS, Preeti, Dhasmana DC. A Quasi-experimental Study to Evaluate the Attitudes of MBBS Students Towards Teaching and Learning Communication Skills at Tertiary Care Teaching Medical Institution in Uttarakhand. Indian J. Pharm. Biol. Res. 2026;14(4):334-341

Received: 27.09.2026 Revised: 05.10.2026 Accepted: 13.10.2026

This study aimed to evaluate the perceptions and attitudes of MBBS students toward communication-skills education, with reference to the Foundation of Communication (2.1) module. The primary objective of this study was to assess the attitudes of second-year MBBS students towards teaching, learning, and the development of communication skills. A secondary objective was to compare these attitudes between second-year and third-year MBBS students, representing the incoming and outgoing cohorts, respectively.

METHODOLOGY

Study Design and Participants

This was a quasi-experimental study design involving repeated assessment of second-year MBBS students before and after an AETCOM-based communication-skills intervention, followed by a comparative assessment of third-year MBBS students. The second-year pre-test and post-test assessments were conducted among the same cohort of students. The third-year assessment represented the subsequent assessment of the outgoing cohort. The study was carried out in the Department of Pharmacology, Himalayan Institute of Medical Sciences (HIMS), Swami Rama Himalayan University (SRHU), Dehradun, Uttarakhand, following approval from the Institutional Research and Ethics Committee (reference number: HIMS/RC/2024/304).

A total of 229 undergraduate MBBS students were eligible to participate in the study, of whom 100 participated in the second-year pre-test, 100 students participated in the second-year post-test, and 129 participated in the third-year assessment. Of the second-year students, 100 completed both the pre-test and post-test and were included in the paired analysis. Of the 300 eligible undergraduate MBBS students, 229 participated in the study, yielding an overall response rate of 76.3%. Participants were recruited using convenience sampling. Inclusion criteria were all phase 2 MBBS students of the institution who gave consent and attended AETCOM 2.1 module competencies in pharmacology. Students who did not wish to participate or those who had not been exposed to the AETCOM 2.1 module were excluded from the analysis. All participants provided written informed consent. Data collection was conducted through a structured online questionnaire administered via Google Forms, and participants were requested to complete and submit their responses electronically.

Educational Intervention

Between the second-year pre-test and post-test assessments, students participated in the AETCOM Foundation of Communication (2.1) module. AETCOM module 2.1 foundation of communication was delivered in 3 interdependent sessions (total 5 hours duration) conducted on weekly intervals. Initial 1-hour introductory session was taken as large group and students were sensitized on principles of communication with focus on opening the discussion, listening and gathering data. In second session of 2 hours students were taught in detail regarding principles of effective communication, verbal and non-verbal communication, effective listening, Kalamazoo consensus statement and few videos were shown. In third session of 2 hrs. students presented role play on importance of communication with patients in which they got opportunity to observe, criticise and discuss common mistakes in opening the discussion, listening and data gathering.

All sessions were facilitated by same faculty in pharmacology at HIMS. The post-test assessment was conducted immediately after completion of the intervention. The intervention was conducted as part of the institution's scheduled undergraduate AETCOM teaching programme.

Assessment Tool

Participants' perceptions and attitudes regarding the teaching and learning of communication skills were assessed using the validated and widely utilised Communication Skills Attitude Scale (CSAS) [8]. The CSAS consists of 26 items designed to evaluate attitudes towards doctor-patient communication skills. The scale

comprises two domains: a positive attitude subscale containing 13 items and a negative attitude subscale containing 13 items.

Each statement was rated using a five-point Likert response format ranging from strongly agree to strongly disagree. The positive attitude items included questions 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23 and 25, whereas the negative attitude items comprised questions 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24 and 26.

Responses to all CSAS items were scored using a five-point system. For positively worded statements, scores were assigned as follows: strongly agree = 5, agree = 4, neutral = 3, disagree = 2 and strongly disagree = 1. For negatively worded statements, scoring was reversed, with strongly disagree receiving 5 points, disagree 4 points, neutral 3 points, agree 2 points and strongly agree 1 point. The total possible score for each subscale ranged from 13 to 65, with higher scores in both subscales indicating more favourable attitudes toward communication skills. Thus, a higher score on the negative-attitude subscale after reverse scoring indicates a relatively less negative/more favourable attitude, rather than a greater negative attitude.

Statistical Analysis

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS), version 20. Descriptive statistics, including mean and standard deviation, were calculated for individual questionnaire items and for both CSAS domains (positive and negative attitude scores). For the second-year pre-test and post-test comparison, a paired-samples t-test was used because the same students participated in both assessments. For comparisons between the second-year post-test and third-year assessment, an independent-samples t-test was used because these assessments represented different cohort's/assessment groups. A p value of <0.05 was considered statistically significant.

OBSERVATION AND RESULTS

Fig. 1 depicts the gender distribution of the study participants. Females constituted the majority of the sample, with 147 participants, while 82 participants were males. Of the 229 participants included in the overall study, 100 students completed the second-year pre-test, 100 students completed the second-year post-test, and 129 students participated in the third-year assessment. A total of 100 second-year students completed both the pre-test and post-test and were included in the paired analysis.

Table 1, Figure 1 depicts mean $\pm$ SD scores for attitude statements related to communication skills among medical students during the 2nd-year pre-test, 2nd-year post-test, and 3rd-year assessment. Students

strongly agreed that good communication skills are essential to being a good doctor (PA1), with consistently high mean scores across all assessments (4.69–4.84). Similarly, students acknowledged that communication skills help in respecting patients (PA3), improving doctor–patient interaction (PA5), and recognizing patient rights such as confidentiality and informed consent (PA9).

Perceptions regarding the usefulness and relevance of communication skills in medical training remained high (PA11, PA15, PA25), indicating that students viewed communication skills as both professionally important and lifelong competencies. Moderate scores were observed for statements related to enjoyment and interest in learning communication skills (PA7, PA17), suggesting that while students recognized the importance of communication skills, they found the learning process less engaging compared with its perceived value. Scores related to teamwork and respect for colleagues (PA19, PA21) remained high across all groups, highlighting the perceived role of communication skills in interprofessional collaboration.

Table 2 depicts mean $\pm$ SD scores for negative-attitude statements related to communication skills among medical students during the 2nd-year pre-test, 2nd-year post-test, and 3rd-year assessment. Because the negative-attitude items were reverse-scored, higher scores represent more favourable attitudes and should not be interpreted as greater negative attitudes. Overall, students demonstrated generally favourable attitudes on the reverse-scored negative-attitude subscale, with scores showing relatively little variation across the three assessments. Students showed moderate responses to statements related to time constraints (NA2) and difficulty trusting non-clinical teachers (NA4), suggesting perceived curricular pressure and some scepticism regarding teaching sources. However, no consistent pattern of change across the three assessments was observed.

High mean scores for reverse-scored items such as “I don’t need good communication skills to be a doctor” (NA6) and “I can’t see the point in learning communication skills” (NA14) reflect strong disagreement with these negative statements and therefore indicate favourable attitudes toward the importance of communication skills. Neutral to moderate scores were observed for statements reflecting low motivation or engagement, such as reluctance to attend sessions (NA8), perceiving communication-skills teaching as obvious or simplistic (NA10, NA12), and difficulty taking communication-skills learning seriously (NA24). This suggests that while students value communication skills, they may question aspects of how

these skills are taught rather than their overall relevance. Lower scores on the reverse-scored items indicate relatively less favourable attitudes for those specific statements and should therefore be interpreted cautiously at the individual-item level. Table 3 depicts the comparison of attitude scores between the 2nd-year pre-test and post-test. There was no statistically significant pre- to post-intervention change in either the positive-attitude or negative-attitude subscale. The positive-attitude score decreased slightly from 53.35 ± 5.0 to 52.47 ± 5.7 ; however, this difference was not statistically significant ($p = 0.247$). Similarly, the reverse-scored negative-attitude score showed a minimal reduction from

43.65 ± 5.7 to 42.7 ± 7.1 , which was also not statistically significant ($p = 0.956$).

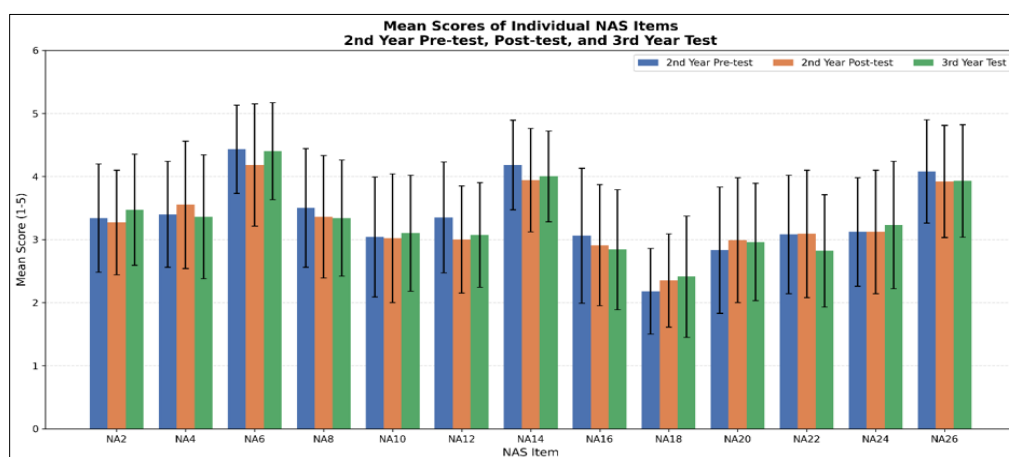
Table 4 depicts the comparison of attitude scores between the 2nd-year post-test and the 3rd-year assessment. There was no statistically significant difference in either positive- or reverse-scored negative-attitude scores between the two assessment groups. The positive-attitude score remained almost unchanged (52.47 ± 5.7 in 2nd-year post-test vs. 52.89 ± 5.2 in 3rd-year assessment; $p = 0.562$). Similarly, the reverse-scored negative-attitude score showed a minimal increase (42.7 ± 7.1 vs. 42.96 ± 5.5), which was not statistically significant ($p = 0.755$).

Table 1: Showing means of individual items PAS for 2nd year pretest, post-test and 3rd year test

	Questions	2 nd year pre test (mean±SD)	2 nd year post test (mean±SD)	3 rd year test (mean±SD)
PA1	In order to be a good doctor, I must have good communication skills	4.82± 0.38	4.69±0.50	4.84±0.38
PA3	Learning communication skills has helped or will help me respect patients	4.39 ±0.62	4.37±0.66	4.49±0.63
PA5	Learning communication skills has improved my ability to communicate with patients	4.23 ± 0.72	4.27±0.60	4.34±0.59
PA7	Learning communication skills is fun	3.64 ±0.75	3.62±0.82	3.55±0.90
PA9	Learning communication skills has helped or will help me recognize patients' rights regarding confidentiality and informed consent	4.34 ±0.63	4.21±0.67	4.27±0.68
PA1 1	I think it's really useful learning communication skills on the medical degree	4.33 ±0.63	4.17±0.75	4.31±0.67
PA1 3	Learning communication skills is applicable to learning medicine	3.9 ± 0.77	3.85±0.80	3.67±0.87
PA1 5	Developing my communication skills is just as important as developing my knowledge of medicine	4.09 ±0.84	3.99±0.90	4.08±0.63
PA1 7	Learning communication skills is interesting	3.74 ±0.76	3.69±0.76	3.48±0.93
PA1 9	Learning communication skills has helped or will help facilitate my team-working skills	4.23 ±0.60	4.2±0.53	4.24±0.54
PA2 1	Learning communication skills has helped or will help me respect my colleagues	4.13 ±0.66	4.07±0.53	4.04±0.71
PA2 3	Communication skills teaching would have a better image if it sounded more like a science subject	3.18 ±1.01	3.16±1.01	3.16±0.95
PA2 5	Learning communication skills is important because my ability to communicate is a lifelong skill	4.33 ±0.68	4.18±0.68	4.35±0.57

Table 2: Showing means of individual items of NAS for 2nd year pre- test, post- test and 3rd year test

	Questions	2 nd year pre test (mean±SD)	2 nd year post test (mean±SD)	3 rd year test (mean±SD)
NA2	I haven't got time to learn communication skills	3.34 ±0.86	3.27±0.83	3.47±0.88
NA4	I find it difficult to trust information about communication skills given to me by non-clinical lecturers	3.40 ±0.84	3.55±1.01	3.36±0.98
NA6	I don't need good communication skills to be a doctor	4.43 ±0.70	4.18±0.97	4.40±0.77
NA8	I can't be bothered to turn up to sessions on communication skills	3.5 ±0.94	3.36±0.97	3.34±0.92
NA10	Communication skills teaching states the obvious and then complicates it	3.04 ±0.95	3.02±1.02	3.10±0.92
NA12	Learning communication skills is too easy	3.35 ±0.88	3±0.85	3.07±0.83
NA14	I can't see the point in learning communication skills	4.18 ±0.71	3.94±0.82	4±0.72
NA16	Nobody is going to fail their medical degree for having poor communication skills	3.06 ±1.07	2.91±0.96	2.84±0.95
NA18	When applying for medicine, I thought it was a really good idea to learn communication skills	2.18 ±0.68	2.35±0.74	2.41±0.96
NA20	I find it hard to admit to having some problems with my communication skills	2.83 ±1.00	2.99±0.99	2.96±0.93
NA22	My ability to pass exams will get me through medical school rather than my ability to communicate	3.08 ±0.94	3.09±1.01	2.82±0.89
NA24	I find it difficult to take communication skills learning seriously	3.12 ±0.86	3.12±0.98	3.23±1.01
NA26	Communication skills learning should be left to psychology students, not medical students	4.08 ±0.82	3.92±0.89	3.93±0.89

**Figure 1: Grouped bar chart showing means of individual items of NAS for 2nd year pre- test, post- test and 3rd year test****Table 3: Showing comparison between 2nd yr pre- and post- test (n=100)**

	2 nd year pre test (mean±SD)	2 nd year post test (mean±SD)	P value
Positive attitude Score	53.35 ± 5.0	52.47 ± 5.7	0.247
Negative attitude Score	43.65 ± 5.7	42.7 ± 7.1	0.956

Table 4: Showing mean $\pm$ SD comparing second and third-year students

	2 nd year post test (mean $\pm$ SD) (n=100)	3 rd year test (mean $\pm$ SD) (n=129)	P value
Positive attitude Score	52.47 $\pm$ 5.7	52.89 $\pm$ 5.2	0.562
Negative attitude Score	42.7 $\pm$ 7.1	42.96 $\pm$ 5.5	0.755

Overall, the findings indicate that students demonstrated generally favourable attitudes toward communication-skills learning; however, the study did not demonstrate a statistically significant improvement in overall attitude scores following the intervention.

DISCUSSION

This study evaluated medical students' perceptions of communication-skills training at three assessment points: a pre-intervention evaluation during the second year, a post-intervention assessment, and a follow-up assessment in the third year. The results demonstrated generally favourable attitudes toward communication-skills education, with mean item scores exceeding 4.0 for most positive-attitude scale components. These observations align with earlier research indicating that medical students recognize effective communication as an essential component of clinical practice and professional competence [8]. A key observation is the consistently high score for PA1, emphasizing that good communication skills are essential for being a competent doctor. This reflects strong alignment with patient-centred care principles, where effective communication is fundamental to clinical practice [9]. Similarly, high scores for PA25 (communication as a lifelong skill) and PA3 (respect for patients) suggest that students recognize the ethical and professional importance of communication.

However, a slight decline in mean scores from pre-test to post-test was observed in several items, followed by stabilization or improvement in the third year. These descriptive changes should be interpreted cautiously because the overall positive-attitude score did not show a statistically significant pre- to post-intervention change. The observed pattern may reflect the "attitude dip" phenomenon described in the literature, where students' initial enthusiasm declines after exposure to structured communication-skills training [10]. This may be due to increased self-awareness, cognitive burden, or perceived limitations of teaching strategies.

Items related to interest and enjoyment, such as PA7 and PA17, demonstrated comparatively lower scores and a gradual decline over time. This suggests that while students value communication skills, their engagement may decrease as training progresses. Similar findings have been reported, indicating that

communication-skills teaching may lose its appeal if not effectively integrated into clinical contexts [11].

The gradual decline in PA13 (applicability to learning medicine) further indicates a perceived disconnect between theoretical teaching and its clinical application. This highlights the potential value of integrating communication-skills training into real or simulated clinical environments, as experiential learning may enhance its relevance and retention [12]. Conversely, items such as PA5 (improvement in communication ability) and PA19 (team-working skills) showed slight improvements over time. These item-level changes are descriptive and should not be interpreted as evidence of a statistically significant intervention effect. Evidence from prior studies indicates that effective communication plays a key role in fostering collaborative teamwork, improving patient satisfaction, and achieving better clinical outcomes [13]. The relatively higher variability in responses to PA23 indicates differing student perceptions regarding whether communication skills should be framed as a scientific subject. This reflects an ongoing challenge in medical education, where communication is sometimes undervalued compared to biomedical knowledge [8]. Overall, while attitudes toward communication skills remained favourable, the absence of a statistically significant pre- to post-intervention change suggests that a single or relatively brief educational exposure may not be sufficient to produce measurable changes in overall attitudes. More interactive, clinically integrated, and student-centred teaching approaches may help sustain student interest and reinforce relevance. Table 2 summarizes the mean ($\pm$ SD) scores of individual NAS items across three time points: the 2nd-year pre-test, 2nd-year post-test, and 3rd-year follow-up. Because the negative-attitude items were reverse-scored, the resulting NAS scores should be interpreted such that higher scores indicate more favourable attitudes and not greater negative attitudes. Overall, the scores showed relative stability across the three assessments rather than a progressive increase in negative attitudes.

A consistently high score was observed for NA6 ("I don't need good communication skills to be a doctor"), suggesting strong disagreement with this negative statement and therefore, a favourable perception of the importance of communication skills. This finding is consistent with the broader observation that students generally recognized the importance of

communication in clinical practice [14]. It should not be interpreted as evidence that students continued to undervalue communication skills.

Similarly, NA14 and NA26 demonstrated comparatively high mean values across the three assessments. Given the reverse-scoring procedure, these higher values indicate relatively favourable attitudes toward communication skills. Although slight reductions were noted after the intervention, these changes should be interpreted cautiously because the overall negative-attitude subscale did not show a statistically significant pre- to post-intervention change. Previous studies have reported that meaningful changes in attitudes may require sustained reinforcement within authentic clinical settings [15].

In contrast, NA16 showed a gradual reduction in mean scores over time. Because these items were reverse scored, a reduction in score should not automatically be interpreted as improved attitudes; rather, it represents a relatively less favourable attitude towards that item. On the other hand, NA2 and NA8 revealed minimal variation across time points, suggesting that issues such as time constraints and motivation may persist despite exposure to training. These barriers have also been identified in prior educational research, where workload and competing academic demands were shown to limit engagement in communication-focused learning activities [16]. Furthermore, the relatively low scores observed in NA18 suggest that students may enter medical training with less favourable or more neutral attitudes toward communication skills. However, these perceptions appeared to remain largely unchanged over time, indicating that early exposure alone may not be sufficient without continued reinforcement throughout the curriculum [17]. Overall, the stability of the negative-attitude subscale scores, together with the absence of statistically significant pre- to post-intervention change, suggests that the intervention did not produce a measurable improvement in overall attitude scores. Attitudes are key determinants of behaviour and, within the domain of communication skills, may influence doctor–patient relationships and clinical outcomes [10]. Assessment using pre- and post-intervention communication-skills attitude scales demonstrated a predominance of favourable attitudes among medical students; however, the change in overall positive-attitude and reverse-scored negative-attitude scores did not reach statistical significance (Table 3). Positive attitudes toward communication skills reflect learners' receptiveness and commitment to engaging in effective patient interactions. Students who hold such attitudes may be more likely to integrate communication competencies into clinical practice, acknowledging their critical role in establishing therapeutic rapport,

enhancing patient satisfaction, and optimizing health outcomes [18]. Conversely, less favourable attitudes may impede effective patient engagement and limit the quality of care delivered [19]. Efforts to address such attitudes can facilitate improved management of communication barriers and complex clinical encounters [8]. The generally favourable attitude scores observed in this study are encouraging; however, they should not be interpreted as evidence of a significant improvement following the AETCOM intervention. In addition, the findings should be interpreted in consideration of the differences between the second- and third-year assessment groups. Comparative analysis of attitude scores between second- and third-year MBBS students demonstrated no statistically significant differences. These findings differ from earlier studies, which reported that senior students exhibited more favourable attitudes and lower levels of negative perception toward communication skills [20, 21]. Differences in study design, year of training, participant characteristics, prior exposure to communication-skills teaching, curricular structure, and institutional context may partly explain these divergent findings. In contrast, investigators at the University of Aberdeen, Scotland, observed significantly higher attitude scores among first-year students than among those enrolled in the second and third years [22].

Taken together, these findings suggest that attitudes toward communication skills may not necessarily improve progressively with advancing academic year alone and may depend on the nature, continuity, and clinical integration of communication-skills education. Significant change in overall attitude scores following the AETCOM intervention, and therefore these educational approaches should be considered as potential strategies for enhancing engagement rather than as evidence of an established effect on communication-skills attitudes. Supporting the value of active-learning approaches in Indian medical education, Prajapati et al. reported greater student engagement and improved academic performance with flipped-classroom teaching compared with traditional didactic teaching [23]. Such active-learning strategies may therefore have potential value when communication-skills education is integrated with opportunities for participation, reflection, practice, and feedback. However, the present study did not demonstrate a statistically.

CONCLUSION

Students demonstrated generally favourable attitudes towards communication-skills education; however, the AETCOM intervention was not associated with statistically significant changes in positive or negative attitudes across assessment points. Communication-skills training should therefore remain an integral and progressively reinforced component of

undergraduate medical education, incorporating opportunities for practice, feedback, reflection and clinical application. Longitudinal, adequately powered studies using validated measures and appropriate comparison groups are warranted to determine whether sustained, clinically integrated AETCOM-based training can produce measurable improvements in students' attitudes and communication competencies.

ACKNOWLEDGMENT

Authors are thankful to all the M.B.B.S Students who were enrolled in the study for their co-operation in conducting the study.

REFERENCES

1. <https://www.nmc.org.in/information-desk/for-colleges/ug-curriculum/> (last accessed on 18/01/2026)
2. Tan XH, Foo MA, Lim SLH, Lim MBXY, Chin AMC, Zhou J, et al. Teaching and assessing communication skills in the postgraduate medical setting: a systematic scoping review. *BMC Med Educ.* 2021; 21:1–19.
3. Talevski J, Wong Shee A, Rasmussen B, Kemp G, Beauchamp A. Teach-back: a systematic review of implementation and impacts. *PLoS ONE.* 2020;15(4):e0231350
4. Kerasidou A, Bærøe K, Berger Z, Caruso Brown AE. The need for empathetic healthcare systems. *J Med Ethics.* 2021;47(12):1083-90.
5. Franceschi D. Physician-patient communication: An integrated multimodal approach for teaching medical English. *Syst.* 2018; 77:13-21.
6. Petty RE, Fabrigar LR. Attitudes and attitude change. *Annu Rev Psychol.* 1997; 48:609-47.
7. 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.
8. 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.
9. Stewart MA. Effective physician-patient communication and health outcomes: a review. *CMAJ.* 1995;152(9):1423-33.
10. Bombeke K, Symons L, Debaene L, De Winter B, Schol S, Van Royen P. Help, I'm losing patient-centredness! Experiences of medical students and their teachers. *Med Educ.* 2010 Jul;44(7):662-73.
11. Kurtz, S., Draper, J., & Silverman, J. (2005). *Teaching and Learning Communication Skills in Medicine* (2nd ed.). CRC Press. <https://doi.org/10.1201/9781315378398>
12. Stewart M, McWhinney IR, Oates J, Weston WW, Jordan J. The impact of patient-centered care on outcomes. *J Fam Pract.* 2000 Sep;49(9):796-804.
13. Gude T, Finset A, Anvik T, Bærheim A, Fasmer OB, Grimstad H, et al. Do medical students and young physicians assess reliably their self-efficacy regarding communication skills? A prospective study from end of medical school until end of internship. *BMC Med Educ.* 2017;17(1):107.
14. Jagosh J, Macdonald ME, Ingram L. The importance of physician listening from the patients' perspective: enhancing diagnosis, healing, and the doctor-patient relationship. *Patient Educ Couns.* 2011;85(3):369-74.
15. Butow P, Devine R, Boyer M, Pendlebury S, Jackson M, Tattersall MH. Cancer consultation preparation package: changing patients but not physicians is not enough. *J Clin Oncol.* 2004 Nov 1;22(21):4401-9.
16. Nestel D, Tierney T. Role-play for medical students learning about communication: guidelines for maximising benefits. *BMC Med Educ.* 2007;7:3.
17. Kinnersley P, Hood K, Cadbury N, Ryan R, Prout H, Owen D, Macbeth F, Butow P, Butler C. Interventions before consultations for helping patients address their information needs. *Cochrane Database Syst Rev.* 2007;2007(3): CD004565.
18. Anvik T, Grimstad H, Bærheim A, Bernt Fasmer O, Gude T, et al. Medical students' cognitive and affective attitudes towards learning and using communication skills - A nationwide cross-sectional study. *Med Teach.* 2008;30(3):272–9.
19. Mannava P, Fisher J, Chersich M, Luchters S. Attitudes and behaviours of maternal health care providers in interactions with clients: A systematic review. *Global Health.* 2015;11(1):1
20. Alotaibi FS, Alsaedi A. Attitudes of medical students toward communication skills learning in Western Saudi Arabia. *Saudi Med J.* 2016;37(7):791-5
21. Piryani S, Deo GP. Medical students' attitudes toward communication skills learning in Chitwan Medical College, Nepal. *Journal of BP Koirala Institute of Health Sciences.* 2020;3(1):96-104.
22. Cleland J, Foster K, Moffat M. Undergraduate students' attitudes to communication skills learning differ depending on year of study and gender. *Med Teach.* 2005;27(3):246-51.
23. Prajapati HG, Oza B, Modi NY, Amaliyar JN, Patel P. From Passive to Active: A Comparative Evaluation of Flipped Classroom and Didactic Methods in Phase III Part I MBBS Student. *Glob J Med Pharm Biomed Update.* 2025; 20:15.