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# Enhancing Communication Skills Training for Preclinical Medical Students: Insights from a Checklist-Based Formative Assessment

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**Abstract:** Effective communication is essential in clinical practice and is a core competency in medical education. India's National Medical Commission (NMC) introduced a longitudinal communication module under the Attitude, Ethics & Communication (AETCOM) framework; however, preclinical assessment remains largely theoretical, with limited experiential learning. This mixed-methods study evaluated the feasibility, acceptability, and educational value of a structured checklist-based formative assessment using standardized patients (SPs) among Phase I MBBS students. Of 150 enrolled students, 148 completed all components and were included in the final analysis. After faculty sensitization and student orientation through didactic sessions, curated videos, and role-plays, participants completed 10-minute SP encounters assessed with a validated 35-item binary checklist (Chauhan et al., 2023) covering rapport building, clarity, responsiveness, support, empathy, and summarization/closure. Faculty observers provided immediate group and individual feedback, while student logbook reflections were reviewed using a structured rubric. Student and faculty perceptions were captured using Likert-scale questionnaires. Checklist-derived performance scores were highest for clarity of communication (94.59 ± 8.12%), attentiveness/active listening (93.50 ± 9.45%), rapport building (88.51 ± 12.34%), support (82.57 ± 13.67%), and responsiveness (81.07 ± 11.23%); lower scores were observed for empathy (75.23 ± 16.45%) and closure (65.20 ± 18.90%). Students strongly endorsed the structured approach (99.3%) and reported improved confidence (95.2%); 98.0% recommended routine practical communication assessment. Faculty (n=6) also endorsed the feasibility of the approach and its alignment with AETCOM goals. These findings support the feasibility and acceptability of integrating SP-based checklist assessment into early AETCOM delivery and identify empathy and encounter closure as priority areas for further training.

**Keywords:** AETCOM, Competency-Based Education, Objective Structured Clinical Examination, Standardized Patients, Undergraduate Curriculum.

## 1. Introduction

The doctor-patient relationship is built on effective communication, facilitating accurate history taking, adherence to treatment, patient trust, and mutual decision-making (Silverman *et al.,* 2013). In undergraduate medical education, communication and interpersonal skills are considered as core competencies globally (Makoul, 2001; Brown, 2008; General Medical Council, 2009). However, foundational communication behaviours (active listening, building rapport, and explaining treatment options) are usually gained informally rather than the concept of teaching (Batalden *et al.,* 2002). During early training, dependence on observation and informal apprenticeship leads to competence in professional practice (Frank, 2005).

In the wake of rising reports of erosion of trust, violence, and miscommunication against healthcare providers strengthening of doctor–patient communication has gained immense importance. The most common triggers of patient dissatisfaction identified were inadequate listening or counselling, and poor interpersonal skills (Nagpal, 2017). To address this gap, a separate 'Attitude, Ethics & Communication (AETCOM) module was introduced in the "Competency Based Medical Education (CBME) Undergraduate Curriculum" which was launched in 2018 by the

National Medical Commission (NMC), India (Medical Council of India, 2018). The curriculum came into effect from 2019 batch and specifically emphasized communication training to Indian Medical Graduates (IMG) spanning across all phases of the MBBS course, beginning with Phase I. The longitudinal framework emphasizes development of appropriate attitudes and communication abilities that future physicians must acquire along with knowledge and clinical competencies (Medical Council of India, 2018). However, despite these curricular reforms, communication training remains predominantly theoretical, especially during the preclinical phase, limited to didactic lectures and occasional role plays involving only a few students, with assessment through written reflections or theory papers. It is neither experiential nor performance-based and lacks structured opportunities for observation, practice, and formative feedback. As a result, the translation regarding intended learning outcomes remains inconsistent into observable communication behaviours.

Corresponding to the "shows how" and "does" levels of Miller's pyramid, the accurate assessment of communication competence requires observation of actual performance as, written component can evaluate only knowledge (Miller, 1990). Moreover, translation into effective communication skills cannot be acquired only through passive exposure (Brown, 2008; Modi *et al.,* 2016). To mitigate such conflicts, early guided practice in communication can facilitate professional conduct, self-awareness, and empathy. Early learners often find it difficult to translate theoretical concepts into real or simulated interactions without structured opportunities for practice and formative feedback (Brown, 2008; Jain *et al.*, 2022). Therefore, to ensure that communication skills are taught and evaluated as integral components of professional competence, faculty engagement and structured assessments are critical (Modi *et al.,* 2016).

Hence, in the preclinical phase, introduction of structured, observation-based assessment bridges a critical gap in curriculum implementation, transforming AETCOM objectives for communication from theoretical discussions into measurable and formative learning experiences for novice learners. As assessment drives learning (Mitra and Saha, 2016), designing practical and feasible assessment strategies for early learners is essential. While several validated instruments assess communication skills, most are tailored to advanced trainees or complex clinical contexts (Hargie, 2016; Van Dalen, 2001). To address this limitation, Chauhan et al. developed and validated a simple, observation-based checklist focusing on basic communication domains such as rapport building, clarity of communication, responsiveness, and empathy, which are well suited for novice learners without much focus on diagnosis and treatment (Chauhan *et al.*, 2023).

Although the importance of early communication skills assessment has been widely emphasized, the routine use of checklist-based assessment/observation of practical communication skills remains limited. Hence, the present study was undertaken to introduce and implement a checklist-based tool for the formative assessment of basic communication skills among Phase I medical students. The objectives of the present study were to evaluate student performance based on checklist scores, provide formative feedback for improvement based on the performance, capture perceptions of both learners and faculty about the newly introduced assessment tool, and sensitize faculty to the importance of practical assessment of communication skills during preclinical training. The present study contributes to the literature by evaluating the feasibility and acceptability of embedding a validated checklist-based formative SP assessment within the preclinical Phase I AETCOM module in an Indian medical college setting. It provides novel domain-specific performance data on novice learners, learner/faculty perceptions, and practical insights for scaling structured communication training early in the MBBS curriculum, addressing a documented implementation gap beyond simple local adoption of the tool.

## 2. Materials and Methods

### 2.1 Study design, setting, and participants

This cross-sectional, mixed-methods educational evaluation study was conducted at a medical college and tertiary care hospital in Pune, Maharashtra, India. Quantitative data were obtained from checklist scores and Likert-scale survey responses from students and faculty members. Qualitative data comprised responses to open-ended questionnaire items and student logbook reflections. A total of 150 Phase I MBBS students enrolled in the 2024–25 academic year participated in the study; 148 completed all components of the intervention and were included in the final analysis. Preclinical faculty members from the Physiology, Anatomy, and Biochemistry departments participated

in the implementation and assessment activities. The "Foundation of Communication-I" module was implemented in accordance with the National Medical Commission (NMC) AETCOM guidance (Mitra and Saha, 2016).

## 2.2 Faculty Sensitization

The module began with an orientation session to familiarize preclinical faculty with the use of the checklist-based assessment tool. Faculty members were trained to standardize observations, feedback delivery, and the use of standardized patients (SPs).

## 2.3 Student Orientation and Teaching–Learning Activities

For students, the program included interactive large-group sessions on the principles of doctor–patient communication, supplemented by small-group discussions, role-plays, and curated video demonstrations illustrating effective and ineffective communication behaviours. Students were sensitized to the assessment method, including the marking criteria and checklist domains.

## 2.4 Assessment process

The checklist-based formative assessment used a pre-validated observation tool comprising 35 binary (Yes/No) items grouped into six domains: rapport building (8 items), clarity of communication (7 items), responsiveness (6 items), support (5 items), empathy (5 items), and summarization/closure (4 items). Domain scores were calculated as the percentage of items achieved within each domain (possible range: 0–100%). There was no overall pass/fail cut-off because the assessment was purely formative. The tool was originally developed and validated by Chauhan *et al.* (2023). Prior to implementation, all faculty assessors (n=6) underwent a half-day sensitization workshop that included didactic training on the checklist, video-based calibration exercises, and practice scoring of mock SP encounters. Inter-rater reliability was not formally quantified in this feasibility study; however, standardization was promoted through group calibration sessions and ongoing discussion of scoring ambiguities during the assessment period.

Multiple Objective Structured Clinical Examination (OSCE) stations were arranged, each involving a standardized patient (SP) and trained faculty observer. Every participating student engaged in a 10-minute SP interaction which was assessed by faculty observers using a checklist. The checklist scores from the formative assessments were shared with the students. Both group and individualized feedback were provided, with an emphasis on domain-wise strengths and areas for improvement. Students also recorded structured reflections on the teaching–learning–assessment module on the 'foundation of communication' in their logbooks, which were evaluated by the faculty using a rubric. The perceptions of students and faculty regarding the module and assessment were collected separately through pre-validated Likert scale-based feedback questionnaires.

This design was chosen to align with the developmental stage of Phase I students and the formative goals of the AETCOM module. At the novice level, learners benefit from structured, low-stakes simulation rather than complex clinical scenarios. The 10-minute SP encounter provides a focused opportunity to demonstrate and practice basic communication behaviours without cognitive overload from diagnostic reasoning. The binary checklist facilitates reliable, objective observation by faculty, enabling domain-specific feedback that targets discrete skills. This approach supports the transition from "knows"/"knows how" (theory/reflection) to "shows how" (performance) on Miller's pyramid, while the subsequent group/individual feedback and logbook reflections promote deeper learning and professional identity formation.

## 2.5 Ethical considerations

The study protocol was reviewed and approved by the Institutional Ethics Committee with reference number SKNMC/Ethics/App/2024/267. All participants provided informed consent prior to participation, and data were anonymized to maintain confidentiality.

### 2.6 Data Analysis

Student logbook reflections on the teaching–learning–assessment module were reviewed by faculty using a structured rubric addressing depth of reflection, identification of personal strengths and weaknesses, and linkage to future practice. The reflections were used as a formative and descriptive secondary outcome; rubric scores were not analysed as a separate quantitative endpoint. Checklist scores and feedback questionnaire data were analysed using Microsoft Excel and summarized using descriptive statistics. Open-ended student and faculty feedback and student logbook reflections were analysed using conventional content analysis. Two investigators independently read all responses repeatedly for familiarization and generated initial codes inductively. Codes were collated into broader themes through iterative discussion and consensus, and discrepancies were resolved through joint review. Representative verbatim quotations were selected to illustrate the main themes.

## 3. Results

Checklist-derived performance was summarized across the communication components reported in Figure 1. Mean percentage scores exceeded 80% for clarity of communication (94.59 ± 8.12%), attentiveness/active listening (93.50 ± 9.45%), rapport building (88.51 ± 12.34%), support (82.57 ± 13.67%), and responsiveness (81.07 ± 11.23%). Lower scores were observed for empathy (75.23 ± 16.45%) and closing the interview (65.20 ± 18.90%). The figure also reports a mean score of 76.80% for introduction. Overall, empathy and encounter closure were the weakest reported components and represent priority areas for improvement.

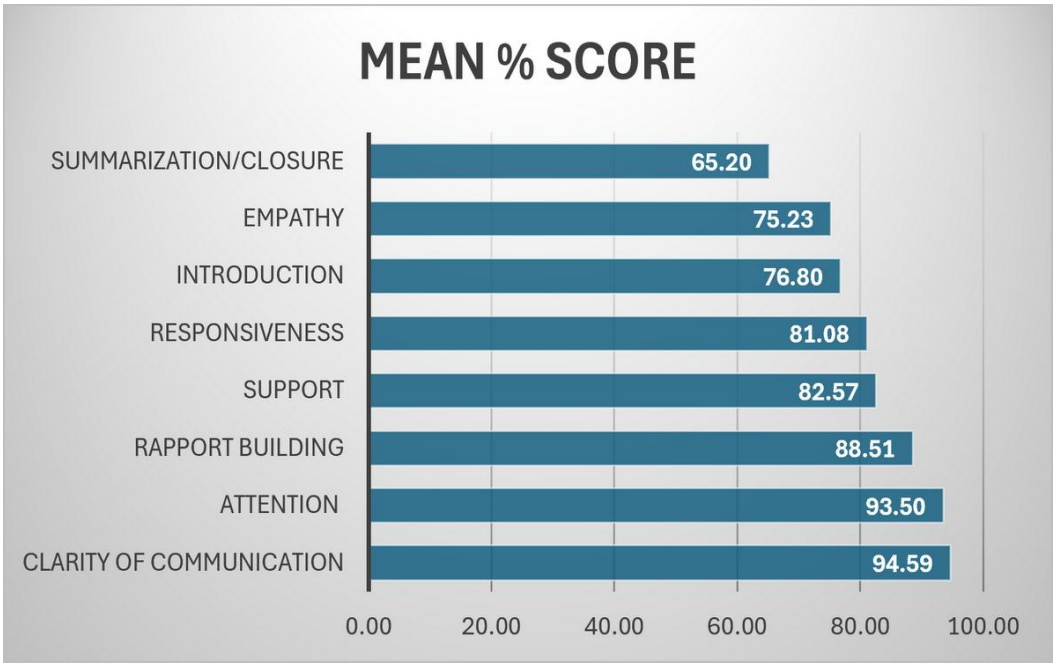


**Figure 1.** Mean percentage scores across assessed communication components.

Analysis of student feedback showed that 142 of 148 students (95.9%) rated the overall AETCOM module training and assessment sessions as "excellent" or "good": 81 (54.7%) rated them "excellent," 61 (41.2%) rated them "good," and 6 (4.1%) rated them "average." No student rated the sessions as "fair" or "poor."

Positive responses were observed across the student perception items (Table 1). Nearly all students agreed that the checklist-based assessment provided a structured and systematic approach (99.3%) and was well aligned with the communication teaching–learning sessions (99.3%). In addition, 99.3% felt that the assessment helped them practise basic communication skills with standardized patients, and 95.2% reported improved confidence in their ability to establish basic patient communication after the exercise. Feedback on performance was perceived as constructive and helpful by 99.3% of students, while all participants (100%) agreed that the module improved their understanding of foundational communication principles. A total of 98.6% felt that practical assessment helped them write reflections more effectively, and 97.3% confirmed that they had been informed of the checklist points in advance.

**Table 1.** Percentage agreement of student perceptions

| Question Number | Items | Strongly Agree and Agree (%) | Disagree and Strongly Disagree (%) |
|---|---|---|---|
| Q. 2 | I was informed about the checklist points well in advance. | 144 (97.3) | 4 (2.7) |
| Q. 3 | The checklist-based assessment helped me practice basic communication skills on standardized patients. | 147 (99.3) | 1 (0.7) |
| Q. 4 | The checklist allowed a structured and systematic approach to assessment of communication skills. | 147 (99.3) | 1 (0.7) |
| Q. 5 | The assessment was well aligned with the teaching–learning sessions on communication skills. | 147 (99.3) | 1 (0.7) |
| Q. 6 | After the assessment I felt improved confidence in my ability to establish basic communication with the patients. | 141 (95.2) | 7 (4.7) |
| Q. 7 | The feedback I received was constructive and helpful. | 147 (99.3) | 1 (0.7) |
| Q. 8 | Overall teaching-learning-assessment module helped me in better understanding of the foundational principles of communication. | 148 (100) | 0 |
| Q. 9 | I feel that after undergoing the practical assessment I could write reflections in a better way. | 146 (98.6) | 2 (1.4) |

In response to Question 10, 145 of 148 students (98.0%) indicated that practical assessment of communication skills should be conducted routinely alongside conventional assessments, such as theory-based examinations and evaluation of reflections (Figure 2).

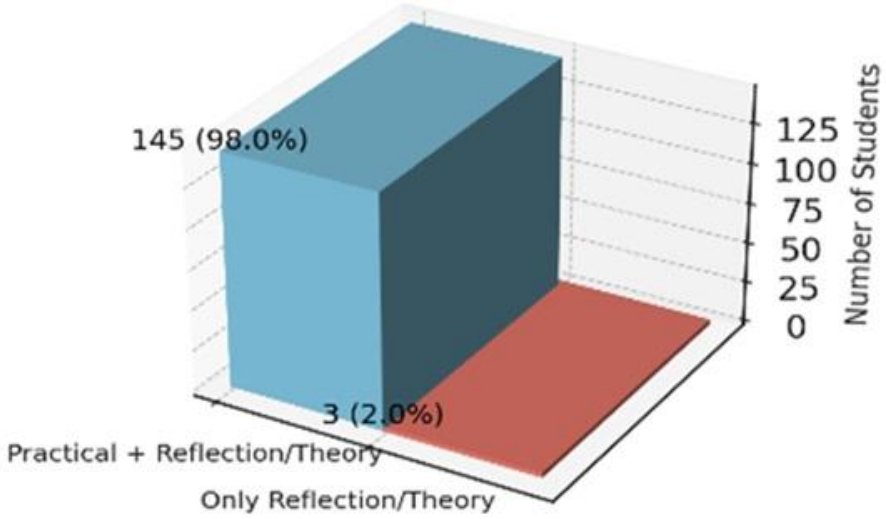


**Figure 2.** Students' opinion about practical Communication assessment

Analysis of responses to the open-ended student feedback question further emphasized the perceived value of practice-oriented learning experiences (Table 2). Three main themes were identified: (1) value of practical, experiential learning; (2) improved confidence and awareness of gaps; and (3) suggestions for improvement, including requests for more one-to-one feedback, longer interaction time, and use of unfamiliar SPs. Among the 56

students who provided open-ended feedback, 30 (53.6%) indicated that they had no suggestions and described the module positively. Because individual responses could contain more than one idea, the categories in Table 2 are not mutually exclusive.

### *Theme 1: Value of practical, experiential learning*

Students frequently highlighted the benefit of hands-on practice over theoretical sessions.

Representative quotes include: "Practical assessment would be helpful for future both academically & clinically" and "It was best AETCOM module to learn, enjoyed a lot due to practical application." Many described it as well-organized and insightful for identifying shortcomings (e.g., "Well organized assessment, got to know about our shortcomings in communication with patients").

### *Theme 2: Improved confidence and awareness of gaps*

Participants reported greater self-awareness and confidence.

Examples: "Improved my confidence level about communication with patients, learnt many things" and "Feedback received would be helpful in future."

### *Theme 3: Suggestions for improvement*

A smaller subset suggested enhancements such as more one-to-one feedback, longer interaction times, or use of unknown SPs (e.g., "More detailed one to one feedback should be given, time given for the interaction should be more" and "Instead of known tutors as standardized patients, unknown patients would be better").

**Table 2.** Analysis of Student Feedback to Open Ended Question

| Open-ended student feedback | Students expressing the view, n (%) |
|---|---|
| Total respondents: 56 | |
| Well organized assessment, got to know about our shortcomings in communication with patients | 21 (37.5) |
| Practical assessment would be helpful in the future, both academically and clinically. | 21 (37.5) |
| Improved my confidence in communicating with patients and helped me learn many things. | 9 (16.1) |
| It was the best AETCOM module for learning because of its practical application. | 5 (8.9) |
| Feedback received would be helpful in the future. | 1 (1.8) |
| More detailed one-to-one feedback should be given, and more time should be provided for the interaction. | 1 (1.8) |
| It was a very good initiative. | 14 (25.0) |
| It should be conducted routinely, every year. | 9 (16.1) |
| Instead of known tutors as standardized patients, unfamiliar patients would be better. | 3 (5.4) |
| Prior discussion of the checklist helped in practising important aspects of communication. | 1 (1.8) |
| Scores should be shared immediately. | 1 (1.8) |
| Face-to-face learning with patients was useful for understanding the doctor–patient relationship. | 1 (1.8) |
| Role-plays helped in understanding communication principles. | 2 (3.6) |
| Marks should not be counted for internal assessment; this would make the conversation freer and more meaningful. | 1 (1.8) |
| No suggestions; everything was good. | 30 (53.6) |

Analysis of faculty feedback showed that 3 of 6 faculty members (50.0%) rated the overall AETCOM module training and assessment sessions as "excellent," while the remaining 3 (50.0%) rated them as "good" (Figure 3).

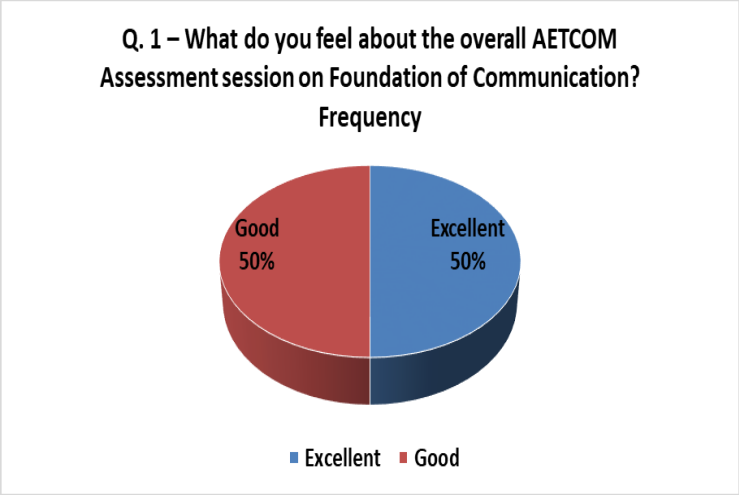


**Figure 3.** Overall faculty ratings on AETCOM training and assessment session.

Faculty feedback was strongly positive across the perception items (Table 3). All six faculty members (100%) agreed that the checklist was comprehensive, supported a systematic and structured assessment of communication skills, was feasible for routine use, addressed the "shows how" level of Miller's pyramid, and aligned with the NMC AETCOM framework. All also endorsed the value of prior sensitization. For checklist clarity, 5 of 6 faculty members (83.3%) agreed that the checklist was easy to understand and follow, while 1 (16.7%) reported difficulty.

**Table 3.** Analysis of faculty perceptions

| Question number | Item | Strongly agree/Agree, n (%) | Disagree/Strongly disagree, n (%) |
|---|---|---|---|
| Q. 2 | The checklist was comprehensive and checked all the necessary aspects of communication. | 6 (100) | 0 |
| Q. 3 | The checklist allowed a structured and systematic approach to assessment of communication skills. | 6 (100) | 0 |
| Q. 4 | The checklist was easy to understand and follow. | 5 (83.3) | 1 (16.7) |
| Q. 5 | Feasible to be carried out routinely. | 6 (100) | 0 |
| Q. 6 | The checklist helps to assess the 'Shows how' aspect of communication skills. | 6 (100) | 0 |
| Q. 7 | The Overall Teaching-Learning-Assessment of AETCOM module was well aligned with the NMC guidelines. | 6 (100) | 0 |
| Q. 8 | Prior sensitization about the assessment process helped to understand the process well in advance. | 6 (100) | 0 |

Faculty responses to the open-ended questionnaire are summarized in Table 4. Key themes included appreciation of the initiative and its feasibility, alongside concerns about checklist length, item overlap, and the suitability of binary scoring for some items. Responses were not mutually exclusive because individual faculty members could provide more than one comment.

Student reflections on the overall experience were documented in logbooks and reviewed using the structured rubric. The qualitative review indicated awareness of communication strengths, including rapport and clarity, and identification of areas requiring improvement, particularly empathy and encounter closure. Because the rubric scores were not analysed quantitatively, no score distribution is reported; the reflection findings are presented as descriptive supporting evidence only.

**Table 4.** Analysis of faculty feedback to open ended question

| Faculty open-ended feedback (N=6) | Faculty expressing the view, n (%) |
|---|---|
| Checklist was comprehensive but it was demanding to mark certain points due to nature of the interview. | 1 (16.7) |
| Certain points in the checklist were overlapping/duplication can be avoided. | 2 (33.3) |
| Little bit lengthy checklist. | 1 (16.7) |
| For certain items grading scale can be used instead of Yes/No tick marks. | 1 (16.7) |
| Everything was good/No suggestions. | 3 (50.0) |
| Great initiative. Try to implement for consecutive batches. | 1 (16.7) |

## 4. Discussion

The present study demonstrates that implementing a structured, checklist-based formative assessment using standardized patients is feasible and highly acceptable in the preclinical Phase I Indian MBBS context under the NMC AETCOM framework. Beyond local implementation of the checklist (Chauhan *et al.,* 2023), it provides domain-specific performance profiling for novice learners and valuable insights into early experiential learning integration. Students appreciated that the checklist segregated communication into clear and actionable elements and found the experience highly relevant. A particularly educationally meaningful finding was the uneven performance across communication domains. Students achieved high scores in relational initiation behaviours such as rapport building, clarity of communication, and active listening/attentiveness. In contrast, they demonstrated relative weakness in emotionally responsive behaviours and offering support and encounter closure/summarization. This pattern reflects the developmental stage of novice preclinical learners, who tend to master more observable, task-oriented, and structurally guided skills (e.g., greeting, questioning, and basic information exchange) earlier than the more nuanced, emotionally attuned, and integrative skills such as empathy, emotional intelligence, perspective-taking, and the understanding of subtle cues both verbally and non-verbally, all of which develop slowly with increased clinical exposure and reflection. The same applies to the task of summarizing the interaction and providing support to the patient.

Antila *et al.* and Isaksson et al. similarly reported that simulation is a useful approach for communication training because it allows learners to practise different interaction strategies in a psychologically safer environment and can reduce anxiety (Antila *et al.,* 2024; Isaksson *et al.,* 2022). A study from Iran also found generally positive attitudes toward learning communication skills among medical students, supporting the value of planned and context-sensitive opportunities for communication training within the curriculum (Kandevani *et al.,* 2024).

The performance profile showed that students were relatively strong in rapport building, active listening, and initiating conversations but weaker in empathy, emotional support, and encounter closure. These areas should therefore be prioritized in subsequent training. Students also reported improved confidence in establishing basic patient communication and perceived the structured feedback and experiential practice as valuable. However, the study did not measure long-term skill retention or transfer to actual clinical settings. Accordingly, positive learner perceptions and checklist performance should not be interpreted as evidence of sustained competence or future clinical impact. Longitudinal studies are required to evaluate skill retention and transfer to real patient care.

These relational and emotionally responsive behaviours may be underemphasized early in training despite their importance for patient-centred care (Athavale, 2022). Persistent gaps in patient-centred communication and empathy have also been described among more advanced learners, supporting the value of targeting these skills early in training (Moezzi *et al.,* 2024). From the faculty perspective, the checklist provided a standardized framework for observation and feedback. However, because inter-rater reliability was not formally measured in the present study, improved assessor consistency should be regarded as an intended benefit of calibration rather than a demonstrated outcome.

Students received feedback based on their checklist performance, and many indicated in their reflections and feedback that such structured guidance could support future communication learning. This is consistent with a recent study of Dutch medical students showing that integration of internal and external feedback can help learners recognize strengths and refine communication performance (Yu *et al.,* 2025).

Our findings are also broadly consistent with Agago *et al.* (2021), who reported high feasibility and positive learner perceptions of simulated patient-based communication training among undergraduate medical students in a resource-constrained Ethiopian setting. In the present study, Phase I students were able to translate theoretical AETCOM teaching into observable performance in a low-stakes SP environment. Recent literature on virtual and simulation-based communication training likewise emphasizes the value of safe, repetitive practice for learner confidence and self-efficacy (Fernández-Alcántara *et al.*, 2025; Karakurt *et al.,* 2025). The present study also illustrates the implementation burden associated with faculty training, calibration, and scheduling SP encounters.

Reflective practice can help learners identify strengths, limitations, and priorities for future action. In this study, qualitative review of student logbook reflections indicated basic awareness of communication strengths and gaps, and some students linked the experience to future practice. However, the rubric was used primarily for formative review and the study did not analyse reflection levels quantitatively. The reflection findings should therefore be interpreted as descriptive supporting evidence rather than as a measured improvement in reflective capacity. Future iterations could incorporate explicit training in reflective writing and a validated framework with prespecified scoring and analysis if reflection is to be evaluated as a formal educational outcome (Sandars, 2009).

The implementation of the module required additional planning for faculty assessor training and SP scheduling. Nevertheless, both students and faculty reported positive perceptions of the approach, consistent with current emphasis on competency-based communication training (Brown, 2008; Moezzi *et al.,* 2024). Students reported improved confidence and valued structured feedback and experiential practice, but the study did not measure long-term skill retention or transfer to actual clinical settings. Therefore, these findings should be interpreted as evidence of feasibility, acceptability, and observed checklist performance rather than proof of sustained communication competence.

### 4.1 Limitations and Future Implications

This study has several limitations that should be considered when interpreting the findings. It was conducted at a single institution with a relatively small faculty assessor sample (n=6), which may limit generalizability to other medical colleges in India. The use of known tutors as standardized patients in some encounters could have introduced familiarity bias and reduced the authenticity of interactions compared to completely unfamiliar SPs. Although faculty underwent calibration, inter-rater reliability was not formally quantified, potentially introducing observer variability. Student feedback, collected via self-report questionnaires, may be subject to social desirability bias, leading to overly positive perceptions of the module. Finally, due to time constraints, the study lacked longitudinal follow-up to assess skill retention or transfer to actual clinical practice.

Future studies should incorporate follow-up assessments to examine skill progression and retention over time and should evaluate longitudinal integration of structured communication training across curriculum phases. Targeted practice in empathy and encounter closure, using role modelling, dedicated scenarios, and structured reflective debriefing, may help address the gaps identified at the preclinical stage. Multi-institutional studies with formal inter-rater reliability assessment, larger faculty samples, and follow-up in authentic clinical settings would strengthen the evidence for scalability and transfer. The present work contributes practical implementation evidence for medical colleges seeking to move from theory-heavy to performance-based communication training within AETCOM.

## 5. Conclusion

This mixed-methods study shows that a structured checklist-based formative assessment using standardized patients is a feasible and acceptable strategy for assessing communication performance among Phase I MBBS students within the National Medical Commission (NMC) AETCOM curriculum. Checklist-derived results showed strong performance in clarity of communication (94.59 ± 8.12%), attentiveness/active listening (93.50 ± 9.45%), rapport building (88.51 ± 12.34%), support (82.57 ± 13.67%), and responsiveness (81.07 ± 11.23%). Lower scores were

observed for empathy (75.23 ± 16.45%) and encounter closure/summarization (65.20 ± 18.90%), identifying specific areas that require greater emphasis during early communication training.

Learner and faculty perceptions further supported the acceptability of the intervention. Nearly all students agreed that the checklist provided a structured assessment framework (99.3%), facilitated practical communication with standardized patients (99.3%), and improved their understanding of foundational communication principles (100%). Most students reported greater confidence in patient communication (95.2%), and 98.6% perceived that the practical assessment helped them write reflections more effectively. In addition, 145 of 148 students (98.0%) recommended routine practical communication assessment. All participating faculty endorsed the overall feasibility and curricular alignment of the approach, although one faculty member reported difficulty with checklist clarity.

Overall, the study provides practical evidence that SP-based formative assessment can move early communication teaching from predominantly theoretical instruction toward observable, feedback-driven practice. The findings support targeted reinforcement of empathy and encounter closure and demonstrate the value of structured feedback for novice learners. Because this was a single-institution study without formal inter-rater reliability measurement or longitudinal follow-up, the results should not be interpreted as evidence of sustained competence or transfer to real clinical care. Future multi-institutional and longitudinal studies should evaluate reliability, retention, and clinical transfer.

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## Does this article screen for similarity?

Yes

## Author Credit Statement

Dr. Mrunal Shenwai: Conceptualization, Data Collection, Writing – Original Draft, Writing – Review & Editing. Dr. Priya Mardikar: Conceptualization, Data Collection, Writing – Review & Editing. Dr. Ruth N. Joshi: Data Collection, Writing – Review & Editing. Dr. Anjali Telang: Conceptualization, Writing – Review & Editing. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

## Declaration of AI-Assisted Tools

The authors declare that ChatGPT (developed by OpenAI) was used solely for limited grammatical corrections, language refinement, and improvements in the clarity and readability of the manuscript. The tool was not used for generating scientific content, conducting data analysis, interpreting results, or formulating conclusions. All intellectual contributions, scientific interpretations, and conclusions are the sole responsibility of the authors, who have reviewed and approved the final manuscript.

## Ethics Approval Statement

Ethical approval for this study was obtained from the Institutional Review Board (Approval No. SKNMC/Ethics/App/2024/267, dated 08 July 2024).

## Conflict of Interest

The authors have no conflicts of interest to declare. There is also no financial interest to report. The author certifies that the submission is original work and is not under review at any other publication.

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