Perceptions, Barriers, and Real-Life Impact of Communication Skills Training among Pharmacy Students: A Cross-Sectional Study

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ABSTRACT

Objectives: To explore the perceptions of pharmacy students and faculty toward communication skills training, identify the barriers that hinder its development, and examine how a lack of communication skills affects real-life academic and professional scenarios. This objective aims to shed light on how communication is valued within pharmacy education, how students and faculty perceive its relevance in clinical and academic settings, and why it often remains underemphasized despite its importance. It also seeks to uncover specific challenges such as curriculum limitations, lack of practical exposure, language issues, and limited assessment methods that prevent students from acquiring these vital skills. Furthermore, it investigates the broader consequences of poor communication, including misunderstandings during patient interactions, reduced academic performance, hindered teamwork, and missed career opportunities-emphasizing the urgent need for structured communication training in pharmacy programs. **Materials and Methods:** A mixed-methods cross-sectional study was conducted among 1000 pharmacy students and 100 faculty members across multiple institutions. Data were collected through structured questionnaires, focus group discussions, and classroom observations. Quantitative data were analyzed using descriptive statistics and correlation tests, while qualitative insights were drawn from thematic analysis. **Results:** The majority of students acknowledged the importance of communication in theory but prioritized technical subjects in practice. Barriers such as public speaking anxiety, language challenges, and limited exposure to real-life counseling scenarios were reported. A statistically significant correlation (r = 0.71, $p < 0.05$) was found between communication training and leadership confidence. Additionally, students with poor communication skills reported difficulties in viva exams, presentations, internships, and patient interactions. Faculty echoed these concerns, highlighting the urgent need for integrated training programs. **Conclusion:** Communication skills are not an optional soft skill but a critical professional competency. Pharmacy students must be exposed to structured and engaging communication modules to enhance academic performance, confidence, and employability.

Keywords: Communication Skills, Pharmacy Education, Soft Skills, Student Perception, Mixed-Methods Research, Focus Group Discussion, Healthcare Communication, Patient Counseling, Curriculum Reform.

INTRODUCTION

In the demanding world of healthcare, pharmacists are no longer confined to laboratory benches or behind-the-counter roles. They are counselors, educators, team players, and often the first point of contact for patients seeking clarity and reassurance. This highlights the multidimensional communication role pharmacists play in modern healthcare (Berger, 2003). At the heart of all these roles lies one foundational skill-communication. Yet, communication training remains one of the most undervalued aspects of pharmacy education. Most students immerse themselves in technical subjects-pharmaceutical chemistry, pharmacology, biotechnology-believing that marks and formulas will define their careers. While technical expertise is unquestionably vital, knowledge that cannot be communicated is knowledge that cannot be applied. Several studies have highlighted the gap between communication expectations in the profession and the training received during education. For instance, a global review by Austin and Gregory (2017) revealed that over 70% of pharmacy curricula lacked adequate experiential communication modules (Austin & Gregory, 2017). Similarly, Berger et al., (2018) (Berger

et al., 2018) found that pharmacists who underwent structured communication training demonstrated a 30% higher rate of patient satisfaction and counseling accuracy (Berger *et al.*, 2018).

The cultural mindset within academia often de-emphasizes communication. Students label communication activities as "non-scoring" or "learn-on-the-job" areas. But when the moment arrives-whether in a viva exam, a hospital setting, a seminar, or an interview-this oversight becomes painfully evident. A recent 2024 study on pharmacy education reported that 72% of pharmacy students felt underprepared to explain medication regimens to patients due to a lack of structured communication exposure during their degree programs (Patel *et al.*, 2020). The consequences of poor communication training are not hypothetical-they are lived experiences. A student who cannot confidently explain a side effect to a worried parent or who fumbles while instructing an elderly patient about insulin usage isn't just facing a momentary hiccup-they're risking miscommunication that could impact patient safety. In another alarming statistic, the World Health Organization reports that 56% of preventable medication errors are attributed to miscommunication between healthcare providers and patients (World Health Organization, 2021). This emphasizes how deeply patient safety is connected to communication practices in clinical pharmacy (Miller & Roberts, 2019).

Academically, the fallout is also substantial. Students with poor communication skills often underperform in oral exams and presentations-not due to lack of knowledge, but due to anxiety, low self-expression, or fear of public speaking. Several reported cases confirm that students who otherwise score well on written tests lose up to 20-30% of marks in viva voce evaluations due to ineffective verbal responses (Smith *et al.*, 2019). Moreover, the development of leadership qualities, interpersonal skills, and professional visibility depends heavily on the ability to speak clearly, lead discussions, and handle conversations under pressure. According to Nguyen and Brown (2024), students with high communication confidence are 40% more likely to take up leadership roles in student associations and health campaigns (Nguyen & Brown, 2020).

The cumulative effect of avoiding communication practice is a silent erosion of self-confidence. Students who are unable to express themselves eventually start believing they are not capable. They stop volunteering. They choose lab work over patient-facing roles. They carry this hesitation into interviews, internships, and ultimately into their careers. And yet, this skill is learnable. Institutions that incorporate regular role-plays, interdisciplinary projects, multilingual training, and structured feedback sessions report a significant improvement in student engagement and performance (Miller & Roberts, 2019). These programs not only boost student confidence but also enhance empathy, listening ability, and cultural sensitivity-traits highly valued in today's pharmacy landscape.

This study aims to bridge the academic and practical gap by deeply analyzing how pharmacy students and faculty perceive communication training, what barriers exist, and how real-life scenarios are impacted due to these gaps. It further explores solutions and reforms that can make communication training a permanent and prioritized fixture in the pharmacy curriculum. Because in pharmacy-and in life-being able to speak, listen, and connect isn't optional. It's essential.

MATERIALS AND METHODS

Study Design

This research was conducted as a cross-sectional, mixed-methods study combining both quantitative and qualitative data collection tools to examine the perceptions, attitudes, and real-world challenges faced by pharmacy students in developing communication skills. The mixed-methods approach was chosen to gain both statistical evidence and deeper narrative insights from participants. The mixed-methods design aligns with Creswell's principles for educational research (Creswell, 2015).

Qualitative data from FGDs were analyzed using thematic content analysis. Coding and theme development followed Braun and Clarke's approach (Braun & Clarke, 2006).

Participants and Sampling

A total of 1000 pharmacy students and 100 faculty members from 10 accredited pharmacy institutions across India participated in the study. Students were enrolled across all four academic years: 25% from first year, 30% from second year, 25% from third year, and 20% from final year. Faculty participants included assistant professors, associate professors, and heads of departments from both government and private institutions.

A stratified random sampling technique was employed to ensure balanced representation across gender, academic level, and institution type. Participation was voluntary, and all responses were anonymized.

Inclusion and Exclusion Criteria

Inclusion Criteria: Undergraduate pharmacy students from B. Pharm programs and teaching faculty involved in communication or professional skill training.

Exclusion Criteria: Postgraduate students and administrative staff not directly involved in teaching.

Data Collection Tools Survey Questionnaire

The primary quantitative instrument was a 15-item structured Likert-scale questionnaire designed by the research team and validated by a panel of education experts and psychologists. The internal consistency of the questionnaire was measured using Cronbach's alpha ($\alpha = 0.91$), indicating excellent reliability. Importantly, the design also considered the broader relevance

of communication skills beyond student needs- addressing essential competencies expected by patient academic leaders, Pharmaceutical employers and regulatory bodies.

Each item assessed perceptions of communication skills, public speaking anxiety, confidence, and curriculum coverage. Respondents rated each statement on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) (Table 1).

Table 1: Questionnaire Used in the Study.

Sl. No.	Question Statement
1	Communication skills are essential for my future career.
2	I feel confident in my ability to counsel patients.
3	Communication skills should be given equal importance as technical knowledge.
4	Public speaking makes me anxious.
5	I actively participate in class discussions and presentations.
6	Role-playing exercises improve my communication skills.
7	I find it easy to communicate complex medical information to patients.
8	My pharmacy curriculum provides enough training in communication skills.
9	I believe communication skills help in teamwork and leadership.
10	I am willing to improve my communication skills through training.
11	I feel underprepared for real-world patient counseling.
12	I find it difficult to present confidently in front of an audience.
13	Communication training should begin from the first year of pharmacy.
14	I would benefit from multilingual communication training.
15	Should I start communication skills now, or keep it for later.

The above table presents the 15-item Likert-scale questionnaire used to assess students' perceptions, confidence, and challenges related to communication skills.

Teaching Methods

Group discussions, peer teaching, and case-based learning are vital in building communication skills. Such methods help simulate real-world interpersonal communication settings (Evans & Long, 2018).

Interprofessional Education (IPE) brings pharmacy students together with other healthcare peers to simulate real settings. It fosters collaborative competencies that are essential in clinical communication (Buring *et al.*, 2009).

Classroom Observations

In addition to surveys, classroom observations were conducted across six institutions. Faculty members trained in observational research assessed student engagement during communication exercises such as role-plays, presentations, and simulated counseling sessions. Participation, articulation, eye contact, and response to feedback were documented (Table 2).

Table 2: Classroom Observation Checklist.

Observation Item	Criteria	Rating Scale (1–5)
Initiates participation	Raises hand or volunteers without prompting	1 – Poor | 5 – Excellent
Eye contact	Maintains appropriate eye contact with peers/faculty/patients	1 – Poor | 5 – Excellent
Voice clarity	Speaks clearly and audibly in all responses	1 – Poor | 5 – Excellent
Confidence level	Demonstrates poise, control, and reduced anxiety	1 – Poor | 5 – Excellent
Empathy & respect	Responds politely, uses respectful tone and gestures	1 – Poor | 5 – Excellent
Use of professional language	Applies clinical/ pharmaceutical vocabulary accurately	1 – Poor | 5 – Excellent
Ability to respond under pressure	Handles questions or feedback with composure	1 – Poor | 5 – Excellent
Team interaction	Engages with peers supportively in group discussions/activities	1 – Poor | 5 – Excellent
Listening skills	Displays attentive, responsive listening behavior	1 – Poor | 5 – Excellent
Response to feedback	Implements suggestions given by peers/faculty effectively	1 – Poor | 5 – Excellent

The above checklist was used by faculty observers to document student engagement and communication behaviors during role-plays, presentations, and other communication exercises.

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- 1= Poor: Rarely or never demonstrates the behavior.

- 2= Fair: Demonstrates with difficulty or minimal consistency.

- 3= Average: Demonstrates adequately, but not consistently.
- 4= Good: Demonstrates well with minor gaps.
- 5= Excellent: Demonstrates excellently and consistently.

Faculty were briefed on scoring consistency to ensure inter-rater reliability during classroom observations.

Focus Group Discussions (FGDs)

Qualitative data was gathered via 8 focus group discussions (4 with students and 4 with faculty), each consisting of 6–8 participants. These discussions explored deeper themes: attitudes towards communication skills, personal fears, institutional limitations, and suggestions for improvement. Responses were audio-recorded, transcribed, and coded for thematic analysis (Table 3).

Table 3: Focus Group Discussion (FGD) Questions.

Sl. No.	Discussion Question
1	What is your understanding of communication skills in the context of pharmacy education?
2	Do you think communication skills are adequately addressed in your current curriculum?
3	What are the most common challenges students face while speaking in class or during presentations?
4	How confident do you feel when counseling patients or communicating during practical assessments?
5	In your opinion, what stops students from participating in communication-related activities?
6	Do you feel your faculty (or students) support your communication growth? Why or why not?
7	Have you received any training sessions or workshops on communication? How effective were they?
8	What changes or additions would you suggest to improve communication skills training in your institution?
9	Can you recall a real-life situation where communication skills (or the lack of them) impacted an academic or internship experience?
10	Do you think language barriers or cultural differences affect communication confidence among students?

The above semi-structured questions were used to guide Focus Group Discussions (FGDs) with pharmacy students and faculty. These were designed to explore perceptions, challenges, and suggestions related to communication skills training.

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Data Analysis

Quantitative data from the surveys were analyzed using SPSS Version 26. Descriptive statistics (mean, frequency, and percentage) were used to assess overall trends. Pearson correlation was used to examine the relationship between communication training and self-rated leadership confidence ($r = 0.71$, $p < 0.05$). Chi-square tests ($\chi^2 = 15.84$, $p < 0.05$) were applied to determine differences across academic years and gender groups in terms of attitudes and perceived barriers.

Qualitative data from FGDs were analyzed using thematic content analysis. Codes were grouped into major categories: perception gaps, language challenges, fear of judgment, curriculum limitations, and willingness to improve.

Ethical Considerations

This study was approved by the Institutional Ethics Committee of the lead participating college. Informed consent was obtained from all participants. Participation was voluntary and confidential, with no academic incentives or penalties associated with participation.

RESULTS

Survey Findings

Out of the 1000 students surveyed, 60% agreed that communication skills are essential for their pharmacy careers, but only 42% felt confident in their ability to counsel patients effectively. Meanwhile, 45% of faculty respondents believed communication should be treated with the same importance as technical subjects.

However, a sharp contrast was observed when students were asked about their academic priorities. Over 71% reported spending more time and energy on technical subjects, citing fear of scoring less in core areas like Pharmacology, Pharmaceutics, and Pharmaceutical Analysis, Chemistry, and Clinical pharmacy. This prioritization often led to neglect of communication-based activities, even when offered.

The distribution of communication anxiety among students across academic years is shown in Figure 1.

Some notable survey findings

- 68% of students experienced anxiety while speaking in front of groups.
- 55% confessed to avoiding class participation due to fear of judgment.

- 47% felt their curriculum lacked adequate communication exposure.
- Student Experience Related to communication Anxiety across Academic Year.

Student Experience Related to Communication Anxiety
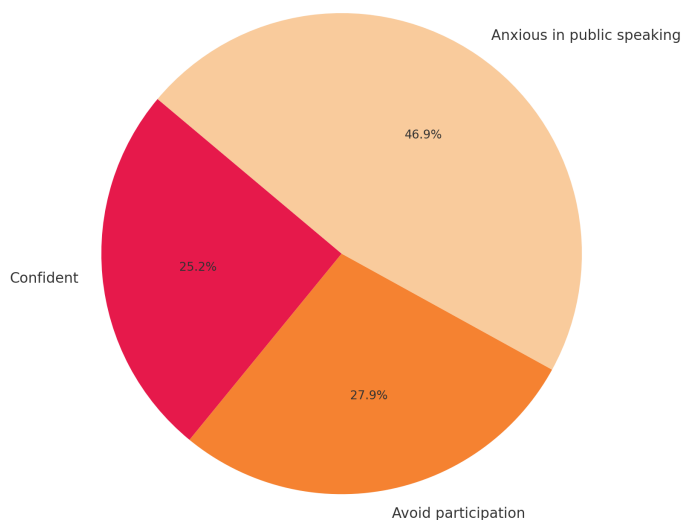

Figure 1: Student experience related to communication anxiety.

- Only 28% had ever participated in a role-play or counseling simulation.
- Representing the Impact of communication training on Confidence across Academic Year.
- A comparative analysis was conducted to assess the impact of structured communication training on student confidence across different academic years. The findings revealed a steady increase in communication confidence among students who received training, as compared to those without such exposure.

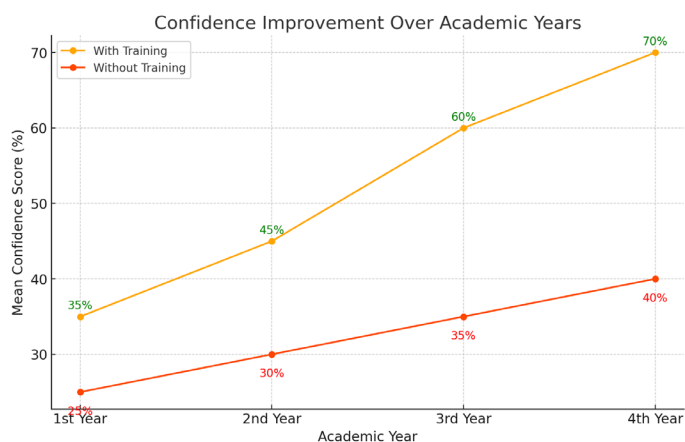The improvement in student confidence across academic years is presented in Figure 2.

Figure 2: Confidence improvement over Academic year.

- Barriers to communication through skills development.

Observed Student Behavior and Participation

Classroom observations reinforced survey trends. In 15 communication training sessions observed across six institutions:

- Over 65% of students remained passive during discussions or role-play.
- Students often struggled with maintaining eye contact, projecting their voice, or structuring patient instructions clearly.
- In simulations, 30% of students failed to use empathetic or patient-friendly language.
- Faculty feedback noted a pattern where even academically strong students hesitated or faltered during verbal assessments and patient simulations.

The primary barriers affecting communication, such as fear of judgement, lack of fluency, and hesitation, were frequently mentioned by students and are summarized in Table 4, reflecting both personal and institutional challenges (Table 4).

Focus Group Discussion Insights

Students repeatedly expressed that they knew the content' but 'didn't know how to say it; this reflects similar concerns expressed by students in previous international studies (Makino *et al.*, 2016).

Thematic analysis of student and faculty focus groups revealed five major areas of concern:

Fear of Judgment

Students frequently cited a fear of being laughed at, judged, or misunderstood when speaking in front of others. Many admitted to knowing the answers but choosing to remain silent.

Language and Accent Insecurity

Non-English medium students expressed discomfort in switching to English, especially when trying to use clinical terminology. This was worsened by fear of pronunciation mistakes.

Lack of Practice Platforms

Faculty and students agreed that very few opportunities were available for students to practice real-world communication. Most reported that even classroom presentations lacked structured feedback.

Academic Performance Pressure

Students felt pressured to excel in high-weightage technical subjects. Time spent on improving communication skills felt like a "luxury," not a necessity, due to the exam-oriented environment.

Positive Impact Where Communication Was Trained: In colleges where structured communication activities (like role-play, mock

counseling, and debates) were implemented regularly, students were notably more confident and expressive.

Statistical Analysis

A significant positive correlation was found between participation in communication training and leadership confidence (r = 0.71, $p < 0.05$).

Chi-square analysis showed that final-year students and students from institutions with regular role-play sessions demonstrated significantly more positive attitudes toward communication skills ($\chi^2 = 15.84$, $p < 0.05$).

Faculty with more than 10 years of teaching experience were twice as likely to support communication reforms compared to newer educators ($p < 0.05$).

Real-Life Impact of Poor Communication

Many students shared personal experiences where a lack of communication training affected their academic performance or confidence. Some examples include:

- Failing or scoring poorly in viva voce exams despite knowing the answers.

- Struggling to answer patient queries during internships.

- Avoiding seminar presentations or leadership roles out of fear.

- Losing internship offers due to underperformance in interviews.

Students voice

One final-year student stated: "I knew everything about the topic, but during the interview, I froze. I couldn't speak. That day, I decided I need help, but I didn't know where to begin."

Table 4: The following table summarizes the key barriers as reported by students and faculty.

Barrier	% of Students Reporting	% of Faculty Reporting
Lack of Awareness	50%	35%
Public Speaking Anxiety	68%	20%
Language Proficiency Issues	22%	15%
Limited Practical Exposure	47%	40%
Curriculum Overload	39%	52%

"I had the answer in my mind, but when the examiner asked, my voice just froze. I couldn't speak."

"During my hospital internship, a patient asked about side effects. I panicked and just said, 'please ask the doctor.' I felt useless." a student of Pharm D.

"In group presentations, I let my friends do the talking. I'm scared I'll mess up my grammar or get stuck mid-sentence." M. Pharm Student said.

"I avoid answering in class-even if I know the answer-because I don't like how everyone turns to look at me." A 1st year of B. Pharmacy said.

"I got rejected in the first round of placements. The interviewer said I lacked confidence in how I explained things." A said by alumni of Pharm D.

"It's not that I don't want to talk. I just never got the chance to practice communication like we do science subjects." A student of B. Pharmacy III yr said.

Table 5: Teaching Methods for Communication Skills.

Method	Description
Role-play simulations	Students act out pharmacist-patient interactions to practice empathy and clarity.
Patient counseling practice	Hands-on training sessions on real or simulated patient interactions.
Group discussions	Open-ended debates or topic-based discussions to improve expression.
Presentation skills workshops	Workshops focusing on structure, delivery, and voice modulation.
Video-based feedback	Students record and review their communication with constructive critique.
Peer teaching	Students explain concepts to peers, encouraging confidence and clarity.
Case-Based Learning (CBL)	Learning through clinical case studies focusing on patient dialogue.
Interprofessional Education (IPE)	Collaborative learning with other healthcare students to simulate real settings.

Table 6: Feedback Methods for Communication Training.

Feedback Method	Advantages
One-on-one verbal feedback	Immediate, personalized and context- specific.
Written feedback forms	Allows reflection; can be saved for future reference.
360-degree feedback	Feedback from faculty, peers, and even simulated patients.
Peer feedback	Encourages collaboration and constructive criticism.
Rubric-based feedback	Standardized scoring ensures fair and detailed evaluation.
Video playback with commentary	Students see and hear their communication style with expert inputs.

Table 7: Assessment Methods for Communication Skills.

Assessment Type	Purpose
Objective Structured Clinical Examination (OSCE)	Assess specific communication tasks under timed, real-life settings.
Case presentations	Evaluate clarity, structure, and confidence in clinical delivery.
Group activities & role-plays	Assess collaboration, voice projection, empathy, and leadership.
Viva voce	Test quick thinking and verbal articulation of knowledge.
Reflective journals	Encourage personal reflection on communication growth.
Communication skill checklists	Track progress on specific communicative behaviors.

Enhancing Communication Skill Training: Practical Methods

Based on the challenges identified in this study, the following tables summarize proven strategies for teaching, assessing, and reinforcing communication skills in pharmacy education.

Various innovative teaching methodologies like role playing, storytelling, group discussions, and real time feedback were explored by faculty to improve communication training. These strategies are compiled and categorized in Table 5, showing a preference for experiential over didactic methods (Table 5).

DISCUSSION

The results of this study highlight a critical and concerning reality: while pharmacy students recognize the importance of communication skills, they are not adequately equipped, trained, or encouraged to develop them. Despite strong theoretical understanding and technical knowledge, a significant number of students struggle with real-time communication tasks-be it in examinations, presentations, internships, or professional interviews. This divide between knowledge and expression emerges not from disinterest, but from systemic neglect and cultural attitudes embedded in the structure of pharmacy education. A recurring theme throughout the data is the overemphasis on technical mastery at the cost of holistic development. Students, shaped by a system that rewards written examinations and memorization, often find themselves unprepared when faced with oral evaluations or patient-communication roles. The academic environment, driven by competition and grade-based validation, inadvertently discourages time spent on 'non-scoring' components like public speaking or interpersonal training. As a result, communication skills are viewed as an optional extra, rather than a core professional competency.

Classroom observations and focus group discussions further reveal the emotional toll of this imbalance. Many students, even those academically strong, exhibit signs of fear, hesitation, and anxiety when asked to express themselves. Their silence is not rooted in ignorance, but in a lack of exposure and practice. Students repeatedly expressed that they 'knew the content' but 'didn't know how to say it.' (Bandura, 1977). This inability to articulate leads to under performance in viva voce exams, clinical case presentations, and internships-scenarios where communication is not just evaluated but essential for success. The findings also align with previous research that emphasizes the connection between communication proficiency and confidence. Students who had been exposed to structured communication activities such as role-play, debates, and counseling simulations showed noticeably higher confidence levels. They were more likely to engage, volunteer, and take initiative. This aligns with Berger *et al*.'s (2018) (Berger, 2003) findings that structured soft skill training increases patient satisfaction and professional adaptability. Likewise, Nguyen and Brown (2020) (Nguyen & Brown, 2020) concluded that communication confidence is directly tied to leadership potential in pharmacy students. These parallels suggest that intentional training not only improves academic outcomes but also shapes future leaders in healthcare.

Faculty perspectives revealed an important nuance: while many educators recognize the importance of communication training, they feel constrained by the existing curriculum and workload. Faculty participants noted that while there is a desire to include more communication-focused sessions, the pressure to complete technical syllabi within limited academic timeframes often leads to such sessions being deprioritized or skipped altogether. This reflects the structural rigidity of the curriculum, where communication training is rarely integrated across subjects and is often treated as a one-time module, if at all. Another

important insight from the data is the influence of language and background. Students from non-English backgrounds or rural areas expressed greater discomfort, often compounded by a fear of judgment or ridicule. Their lack of fluency became a psychological barrier, reducing their participation and engagement. It is vital for educational institutions to address these disparities with sensitivity. Multilingual communication strategies, empathy-based teaching, and peer mentoring could go a long way in making communication training inclusive and accessible for all.

Constructive feedback was highlighted as a critical component of skill development. The types of formats of feedback-peer, mentor based, and self-reflective used across institutions are detailed in Table 6, demonstrating how feed back can influence learner confidence and growth.

Equally concerning is the broader impact of poor communication skills on employability. Several students admitted to struggling during interviews or failing to secure internship opportunities due to their inability to express confidently. These are not isolated incidents but growing trends in the industry. Employers today are looking beyond grades; they want professionals who can listen, counsel, empathize, and lead. Pharmacy students who neglect communication development risk being left behind, no matter how strong their academic records are. What stands out is the dual impact-academic and emotional-of communication challenges. Students lose marks not for lack of knowledge but for lack of voice. They miss opportunities not for lack of ambition but for lack of training. And worst of all, they carry this inadequacy as a silent burden, often internalizing it as a personal failure rather than a systemic gap.

To truly reform this situation, pharmacy education must reimagine communication not as an add-on, but as a parallel stream to technical instruction. Communication modules should be integrated into each academic year, progressively building students' confidence, language fluency, and interpersonal skills. Medical education uses structured skill building formats that pharmacy can emulate (Kurtz *et al.*, 2005). Assessments should not only measure what students know but how well they express, explain, and engage. Exposure to real-world communication scenarios, patient simulations, and community outreach can make learning contextual and empowering. Language barriers must be addressed with empathy. Institutions should offer multilingual communication modules and train faculty to support students from diverse linguistic backgrounds. Students should be encouraged to communicate in the language they are most comfortable with initially, gradually transitioning to English through positive reinforcement and structured support. Bridging this gap is essential to ensure equity in learning and confidence-building.

A combination of verbal presentations, patient role plays, written communication tasks, and peer evaluations were identified as assessment tools. These assessment formats are outlined in Table 7, capturing the diversity in evaluating communication competence (Table 7).

In addition, faculty training programs should be initiated to sensitize educators on the importance of communication skills. Teachers must be empowered not only to teach communication but to model it. Feedback should be constructive and encouraging, and the classroom should be a safe space for expression, experimentation, and growth. Beyond curriculum reforms, a shift in mindset is required-among students, faculty, and administrators. Communication is not a soft skill; it is a survival skill. It is a leadership tool. It is an academic multiplier. The sooner we acknowledge this, the sooner we can start producing pharmacy professionals who are not just technically sound, but also articulate, compassionate, and capable of navigating the complex human dimensions of healthcare.

In conclusion, this study underscores the urgent need for academic institutions to prioritize communication as a skill that is just as essential as technical knowledge in pharmacy. It is not merely about being able to speak well, but about being able to connect, empathize, and lead-traits that define not only great professionals, but great human beings. Without communication, knowledge remains trapped. With it, students become not just pharmacists, but educators, advocates, and change makers.

CONCLUSION

The findings of this study reveal a gap that is as invisible as it is impactful-a communication vacuum in pharmacy education that affects not only student confidence, but also academic performance, professional readiness, and career progression. While pharmacy students are trained in the intricacies of drug formulations, mechanisms of action, and therapeutic protocols, they are often underprepared to explain, present, and counsel-skills that are indispensable in real-world pharmaceutical care.

Communication is not just about fluency or vocabulary. It is about connection. It is about being able to translate medical language into a message that reassures an anxious patient. It is about collaborating with a multidisciplinary team during clinical rounds. It is about leading a health awareness campaign, resolving a conflict during a team project, or delivering a confident presentation in front of peers. These moments define the modern pharmacist as much as any technical expertise. This study has shown that the issue does not stem from a lack of interest among students, but from a lack of systemic support. Students prioritize technical subjects not because they don't see the value in communication, but because the academic system rewards marks over meaningful interaction. They are rarely given

the opportunity, the environment, or the mentorship needed to develop their voice. Faculty members, too, are caught in the time constraints of a packed curriculum and are often left with little space to introduce innovative communication modules.

What emerges is a vicious cycle. Students fear communication-based tasks, avoid participation, and underperform in oral assessments. This leads to lowered confidence, which further discourages them from engaging in future opportunities. Over time, even the most capable students begin to believe that they are not "presentation material" or "leadership material." They carry these beliefs into their internships, job interviews, and sometimes into their careers-where the stakes are much higher, and the consequences of poor communication much more severe. The implications of this study extend beyond the classroom. In the age of patient-centered care, the pharmacist's role is rapidly evolving. Pharmacists are expected to educate patients, detect errors, provide counseling, and ensure adherence-all of which require not just knowledge, but the ability to listen, interpret, and express. The absence of communication training in pharmacy education is no longer a minor oversight; it is a serious professional gap.

Therefore, urgent reforms are needed. This aligns with global calls for transforming health professional education beyond technical mastery (Frenk *et al.*, 2010). Communication training should not be optional or episodic-it should be embedded into the curriculum with the same seriousness as pharmacology or pharmaceutical chemistry. This training should be progressive, starting from the first year and evolving in complexity each semester. Activities such as role-playing, mock counseling, peer interviews, debates, and community outreach programs should be mandatory components of internal assessments. Such exposure not only normalizes communication tasks but also helps students find their voice early on.

In conclusion, communication skills are not optional-they are foundational. Without them, pharmacists are underprepared. With them, they become educators, leaders, and change- makers. The road to reform is not without challenges, but the first step is awareness. And if this study helps even one institution rethink its priorities, or one student reclaim their voice, then it has served its purpose. These insights can also serve as a foundation for wider policy and curricular reforms by educational boards, pharmacy councils, and healthcare institutions aiming to enhance real world communication competencies.

RECOMMENDATIONS

The present study is first of its kind pertaining to effectively address the communication gap identified in this study, pharmacy education must undergo both structural and cultural transformation. The following comprehensive recommendations are offered as a practical blueprint for institutions, educators, and curriculum developers seeking to enhance communication competence among pharmacy students.

Frameworks for evaluating communication must be clear and competency-based. The SEGUE framework is one such tool widely used for structured communication assessment (Makoul, 2001).

Role-playing, mock counseling, and debates should be mandatory components. These methods activate social learning theory, where students learn by observation and imitation (Bandura, 1977).

Simulation-based IPE and mock interviews help prepare students for professional demands. Simulations have proven effective in improving communication safety in interprofessional teams (Liaw *et al.*, 2014).

Embed Communication Training as a Core, Longitudinal Component of the Curriculum

Communication should no longer be treated as an add-on or elective. It must be integrated as a foundational element across all academic years, just like pharmacology or pharmaceutical chemistry. Beginning from the first year, communication training should evolve with the student's academic journey-from basic expression and interpersonal interaction to complex clinical communication and patient counseling in later years. By making it longitudinal and progressive, students will develop both fluency and confidence gradually, allowing skill maturity in parallel with their technical learning.

Diversify Teaching Methodologies to Foster Real Engagement

Traditional lecture-based teaching is insufficient for building communication skills. Institutions must adopt active, student-centred strategies such as:

- Role-play scenarios simulating pharmacist-patient interactions.

- Group discussions and peer debates.

- Public speaking and classroom presentations.

- Peer teaching and storytelling exercises.

- Case-Based Learning (CBL) to stimulate patient-centric thinking.

- Inter Professional Education (IPE), bringing pharmacy students together with nursing, medical, or allied health peers.

- These methodologies allow students to experience communication not just as content, but as a lived, dynamic process.

Develop a Multi-Layered Feedback System for Growth

Feedback must be timely, specific, and constructive to ensure growth. One-time, generalized feedback does little to improve performance. Institutions should develop a multi-channel system:

- One-on-one debriefs after presentations or role-plays.

- Rubric-based evaluations for standardization and clarity.

- 360-degree feedback, incorporating perspectives from peers, faculty, and even standardized patients.

- Self-assessment and reflection journals, allowing students to internalize their learning and identify personal barriers.

- A culture of feedback fosters self-awareness and encourages ongoing refinement of communication style and substance.

Design Authentic and Structured Assessments: To truly value communication skills, they must be assessed meaningfully. Communication cannot be evaluated by written exams alone. Institutions should introduce:

- Live or recorded case presentations, judged for clarity, clinical relevance, and delivery.

- Group assessments involving collaboration, leadership, and voice modulation.

- Reflective journals, documenting student journeys through communication training.

- Faculty checklists aligned with observable communication behaviors.

- Assessment must be transparent, competency-based, and closely tied to real-world application.

Address Language Proficiency and Inclusivity with Empathy: Not all students begin with the same linguistic or cultural confidence. Many come from regional or non-English-speaking backgrounds and feel intimidated by fluency expectations. Institutions must offer:

- Multilingual support tools in the early years.

- Confidence-building workshops focused on overcoming fear of judgment.

- Language-neutral simulations to prioritize clarity and empathy over accent or grammar.

Faculty sensitization on inclusive evaluation practices

This ensures that all students-regardless of background-can access and benefit from communication training.

Invest in Faculty Training and Teaching Resources: Faculty must be empowered to teach communication intentionally and confidently. Many instructors were never formally trained to teach communication skills, yet are expected to model and assess them. Institutions should:

- Conduct periodic workshops on communication pedagogy.

- Provide digital tools for video-based feedback and recording.

- Encourage faculty to participate in interprofessional teaching collaborations.

- Create communities of practice where educators can share success stories, teaching methods, and challenges.

- This transforms faculty into facilitators of communication growth, not just evaluators.

Create Real-World Exposure Opportunities: Learning communication in the classroom is essential, but applying it in real-life settings is transformative. Institutions should:

- Include students in health camps, outreach programs, and public awareness campaigns.

- Arrange mock interviews, tele pharmacy role-plays, and simulated health talks.

- Encourage student-run health clubs or communication forums.

- Partner with hospitals and pharmacies for communication-focused internships.

- These opportunities allow students to see the impact of their voice and the weight of their words.

Build a Culture That Values Communication as Leadership: Perhaps the most important reform is a cultural one. Communication should be seen not as a "soft" skill, but as a leadership attribute, a clinical necessity, and an ethical obligation. Institutions must:

- Highlight communication excellence in awards and recognitions.

- Include communication goals in student progress reports.

- Allow communication skill to influence internship placements and leadership roles.

- Publicly share student success stories in communication growth.

- This shift reframes communication not as something extra, but as something essential.

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ABBREVIATIONS

CBL: Case-Based Learning; **IPE:** Interprofessional Education; **OSCE:** Objective Structured Clinical Examination; **mSP:** Standardized Patient; **CST:** Communication Skills Training; **UG:** Undergraduate; **PG:** Postgraduate; **HCPs:** Healthcare Professionals; **GPA:** Grade Point Average.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

SUMMARY

This original research investigates the perceptions, barriers, and real-life implications of communication skills training among pharmacy students and faculty using a mixed-methods approach. A robust sample comprising students and academic staff from multiple institutions provided insights into the significance of structured communication development. Key findings revealed a strong correlation between communication skills and leadership confidence, with students identifying gaps in curriculum integration and institutional emphasis. The study highlights the urgent need to implement longitudinal communication training modules in pharmacy curricula, supported by interactive teaching strategies, faculty development, and regular assessment.

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