

Impact of focused training on communication skills of final-year medical students in a medical school in India

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RESEARCH

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ABSTRACT

Background

Although communication skills are important for a good physician-patient relationship, Indian medical curricula give very little emphasis on training medical students in this aspect.

Aim

To determine the change in communication skills of final-year medical students following focused training.

Methods

This was an educational interventional study done at Pondicherry Institute of Medical Sciences, a tertiary care teaching hospital in South India, to assess communication skills among final-year MBBS students. Fifty-two students (24 males and 28 females) participated in the study. A pre-test was conducted in the form of an objectively structured clinical examination (OSCE), followed by focused training for four hours. The same OSCE was administered as post-test. A comparison between the pre-test and post-test scores was done using Wilcoxon Signed Ranks Test.

Results

Ninety-six per cent of participants (50 out of 52) showed improvement in their performance after the focused training. The mean marks of the pre-test and post-test were 10.77 ± 3 and 18.04 ± 2 , respectively, out of a maximum mark of 20 ($p < 0.05$). One out of 52 participants did not show any improvement, and one participant scored less in the post-test compared to the pre-test. There was no significant difference in the performance between male and female students.

Conclusion

Focused training can enhance the communication skills of medical students. Hence, it may be included in the curriculum of undergraduate medical teaching programmes in India.

Key Words

Communication skills, medical graduates, focused training

What this study adds:

1. What is known about this subject?

Communication between doctors and patients is a key process of sharing information, which has been shown to affect treatment outcomes. A positive attitude in communicating with patients and a patient-centred approach results in better treatment outcomes.

2. What new information is offered in this study?

Many medical schools in India lack proper training programmes regarding communication skills. This study showed that focused training could improve communication skills.

3. What are the implications for research, policy, or practice?

The communication skills training programme may be included in the Indian medical school curriculum, so that students develop a patient-centred approach when communicating with patients. Repeated training in a real

clinical setting may help medical students acquire and retain better communications skills.

Background

Communication is an important aspect of medical practice. It is how a doctor obtains information from and shares information with a patient. This can either lead to the development of a therapeutic patient-doctor relationship or end in dissatisfaction on both sides. Communication is a building block upon which the physician's relationship with the patient is constructed.¹ All communications between a doctor and a patient are used for information gathering, information distribution, diagnosis, treatment, and the patient's education.

Earlier studies have showed that doctors do not allow patients to voice their concerns.^{2,3} In a recent study it was found that the result of communication depends on the nature of interruption, whether intrusive or cooperative. Patients are more satisfied with cooperative interruption rather an intrusive interruption.^{4,5} Studies have shown that medical students who undergo basic training for communication skills perform better while communicating with patients.⁶⁻⁸ Training in communication skills is not an integral part of the medical curriculum in India.⁹⁻¹¹ Hence, this study was done to highlight the importance of focused training in improving communication skills among medical students.

Method

Final-year MBBS students were requested to voluntarily enrol for the study. The response rate was 65/73 students. From the initial 65 students, 52 students ultimately participated in the study. Ten students did not turn up for the post-test objectively structured clinical examination (OSCE) and three students were inconsistent during their training programme. Consequently, 13 students were excluded from the study. Four faculty members who underwent basic training in communication skills as part of basic course workshop in medical education technologies were selected to be assessors. This workshop comprises a four-day comprehensive training session covering various aspects of medical education, and certification in this workshop is mandatory for all teaching faculty members according to recent regulations of the Medical Council of India. These four faculty members were further trained for two hours with the same checklist that was used for assessment in this study. Six paramedics were selected for simulation as standardised patients during the training. Selected faculty members trained them for four hours.

Out of 52 students, 24 (46.2 per cent) were male and 28 (53.8 per cent) were female. All the participants were subjected to a pre-test in the form of OSCE. This OSCE tested their ability to communicate with a standardised patient in order to obtain consent for performing a phlebotomy. They were allotted 10 minutes to complete the OSCE station. Each participant was assessed for 10 skills (Table 1).

Table 1: Components of communication skills assessed in the pre-test and post-test OSCE

1. Define the purpose of the interview
2. Avoid jargon
3. Listen attentively
4. Maintain eye contact
5. React to queries
6. Negotiate with the patient
7. Empathise
8. Explain clearly
9. Summarise and confirm understanding
10. Maintain patient's welfare

The Calgary-Cambridge Guide for communication process was used to identify the 10 skills for assessment. Each skill was scored as 0 (unsatisfactory), 1 (borderline), and 2 (satisfactory) according to the global consultation rating scale.¹² After the pre-test all participants underwent focused training (Table 2). Two weeks following completion of training, all participants were subjected to a post-test. This OSCE station determined their communication skills in obtaining consent for lumbar puncture from a standardised patient using the same pre-test assessment format. The trained faculty conducted the evaluation of both the pre-test and post-test were conducted. Comparison between the pre-test and post-test scores was done using Wilcoxon Signed Ranks Test. The test was two-sided and a *p* value less than 0.05 was considered as statistically significant. Mann Whitney test was also used to calculate gender difference. SPSS software version 20.0 (IBM Corp., Armonk, NY) was used for analysing the data.

Results

Fifty-two students (24 male and 28 female) participated in the study. The mean pre-test marks were 10.77 ± 3 and mean post-test marks were 18.04 ± 2 ($p < 0.05$) (Tables 3a and 3b). One out of 52 students did not show any improvement and one student scored less score in the post-test compared to the pre-test. There was no significant difference in the performance between males and females (Table 4).

The minimum and maximum marks scored in the pre-test were four and 17, respectively, while for the post-test they were 10 and 20, respectively (Figure 1).

The comparison of each skill also showed significant improvement after focused training particularly in defining the purpose of the interview (76.9 per cent vs. 0 per cent), avoiding jargon (78.8 per cent vs. 1.9 per cent), reacting to queries (61.5 per cent vs. 1.9 per cent), summarising and confirming understanding (90.4 per cent vs. 0 per cent), and maintaining patient's welfare (78.8 per cent vs. 0 per cent). Sixty-three per cent of participants scored equally in both the pre-test and post-test in the skill of maintaining eye contact with the patient. In the assessment of the skill considering empathy and explaining things clearly to the patient, 50 per cent of the students showed improvement, while 46.2 per cent and 40.4 per cent of the students scored equally in the pre-test and post-test, respectively (Tables 5a and 5b).

Discussion

Communication between a physician and a patient is a vital aspect of patient care. Studies have revealed that patients are dissatisfied when doctors dominate the conversation.^{5,13} Effective conversation between patients and doctors has always resulted in good treatment outcomes.^{8,14,15}

The purpose of our study was to demonstrate if there was a change in communication skill level after focused training for final-year medical students at an Indian medical school. Ten different skills were assessed in the form of an OSCE. The task in both the pre-test and post-test was to take consent from standardised patients. Similar tasks were assessed in both the pre-test and post-test to maintain the consistency of assessment, as it has been found that communication skills are content specific.^{16–18} All participants underwent focused training with a standardised patient and were supervised by the trained faculty members. The training focused on taking consent for a procedure and to break bad news. Ninety-six per cent of the participants showed improvement after focused training.

Yedia et al.¹⁹ conducted a similar study among the students of three different medical schools in the United States, where 21 different skills related to five patient care tasks were assessed. Unlike our study, assessment was done by the standardised patients. The students exposed to intervention showed significant improvement in the post-test assessment. In another study involving medical students undergoing surgical clerkship, improvement was noted in communication skills after a six-hour training

workshop.²⁰ In a study by Joekes et al., it was found that students who received training in communication skills as a part of professional development showed significant improvement compared to their counterparts.²¹ A randomised control trial done among dental students in India also highlighted that a course on communication skills improved the student-patient interaction.⁸

Several studies have found that male medical students were slower in learning communication skills than their female counterparts, as females have a more positive approach towards building a partnership and gathering information.^{22,23} A study by Sellenthin suggested that male students improve their communication skills if they are trained in a mixed gender group.²⁴ Our training programme involved both males and females. This could have contributed to the lack of difference in their performance.

Our study has several limitations. First, assessment was done by trained faculty members and not by actual patients. Assessment by actual patients gives the true view of a patient's perception, whether the patient was convinced with the conversation or not. Second, we studied a cohort of students from a single medical school, therefore results may have limited generalisability. Third, we assessed retention of skills after a relatively short interval (two weeks). Whether similar quantum of change would have occurred with a longer gap, and whether repeated training sessions would help long-term retention and improvements in communication skills could not be determined by this design. Fourth, although the pre-test and post-test were assessed by different faculties, blinding was not possible as the assessors were aware of the students' training programme.

The future implication of this study would be to assess the students closer to real-life setting using actual patients and to obtain structured feedback from patients. It also highlights the need to conduct similar research in a wider context, including students from different medical schools from various parts of the country, and also further explore the role of ongoing reinforcement sessions in retention of communication skills.

Conclusion

Communication skills are an important aspect of the patient-doctor relationship with a positive impact on treatment outcome. Focused training can enhance the communication skills of medical students. Hence, its inclusion in the curriculum of undergraduate teaching

program in India is likely to enhance quality of health care in the long run.

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CONFLICTS OF INTEREST

Dr Aneesh Basheer discloses that he is on the editorial board of the *Australasian Medical Journal*.

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PIMS Institute Ethics Committee approved this research and approval reference number is IEC: RC/14/93.

Table 2: Communication skills training programme schedule

Day	Objective	Task/Tools Used	Time
Day 1	Pre-test OSCE	Task: Take consent for phlebotomy	10 minutes to complete the task
Days 2 & 3	Basics of communication skills and their importance in medical practice	Tools used: Lecture, group discussion, videos on doctor-patient communications and role play by simulators	60 minutes per day
Days 4 & 5	Acquisition of communication skills – informed consent and breaking bad news	Tools: Role plays by the participants as a doctor with the standardised patients	60 minutes per day
Two weeks after training	Post-test OSCE	Task: Take consent for lumbar puncture	10 minutes to complete the task

Table 3a: Comparison of pre-test and post-test marks

		Pre_marks	Post_Marks
N	Valid	52	52
	Missing	0	0
Mean		10.77	18.04
Median		11.00	18.00
Mode		11	20
Std. Deviation		3.10	2.08
Range		13	10
Minimum		4	10
Maximum		17	20
Sum		560	938

Table 3b: Wilcoxon Signed Rank Test comparing pre-test and post-test marks

		N	Mean Rank	Sum of Ranks	Z (based on negative ranks)	P value
Post_Marks – Pre_marks	Negative Ranks	1 ^a	1.50	1.50	-6.209	<0.001
	Positive Ranks	50 ^b	26.49	1324.50		
	Ties	1 ^c				
	Total	52				

a. $Post_Marks < Pre_marks$

b. $Post_Marks > Pre_marks$

c. $Post_Marks = Pre_marks$

Table 4: Statistical analysis^a of performance for gender difference

	Pre_marks	Post_Marks
Mann-Whitney U	300.000	248.000
Wilcoxon W	706.000	548.000
Z	-.665	-1.668
Asymp. Sig. (2-tailed)	.506	.095

a. Grouping Variable: Sex

Table 5a: Percentage of students scoring less than, more than or equal to the post-test compared to the pre-test with regard to each communication skill (n=52)

Sl. No.	Skills	Post-test < Pre-test (%)	Post-test > Pre-test (%)	Post-test = Pre-test (%)
1.	Define the purpose of interview	0	76.9	23
2.	Avoid jargon	1.9	78.8	19.2
3.	Listen attentively	13.46	44.2	42.3
4.	Maintain eye contact	3.84	32.7	63.5
5.	React to queries	1.9	61.5	36.5
6.	Negotiate with the patient	9.6	48	42.3
7.	Empathise	3.8	50	46.2
8.	Explain clearly	9.6	50	40.4
9.	Summarise and confirm understanding	0	90.4	9.6
10.	Maintain the patient's welfare	0	78.8	21.2

Table 5b: Statistical analysis based on Wilcoxon Signed Rank Test

Skills	Based on negative rank (Z)	P value
Define the purpose of interview	-5.798	<0.001
Avoid jargon	-5.726	<0.001
Listen attentively	-3.043	0.002
Maintain eye contact	-3.380	0.001
React to queries	-5.111	<0.001
Negotiate well with the patient	-3.735	<0.001
Empathise	-4.362	<0.001
Explain clearly	-3.837	<0.001
Summarise and confirm understanding	-6.160	<0.001
Maintain the patient's welfare	-6.266	<0.001

Figure 1: Comparison of scores obtained in the pre-test and post-test (20 marks maximum)

