



Attitude towards Learning Communication Skills among Undergraduate Medical Students in Karaikal: a Cross-Sectional Study

Dr. Sarthak Das, Assistant Professor, Department of Paediatrics, Jawaharlal Institute of Postgraduate Medical Education and Research(JIPMER),Karaikal,609602

Dr. Kamlakant, Assistant Professor, Department of Microbiology, Jawaharlal Institute of Postgraduate Medical Education and Research(JIPMER),Karaikal,609602

Dr. Archana Malik, Senior Resident, Department of Pulmonary Medicine, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry, 605006

Farhan, MBBS Student,5th semester, Jawaharlal Institute of Postgraduate Medical Education and Research(JIPMER), Karaikal,609602

Miss Komla, Statistical assistant, Department of Biostatistics, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry, 605006

Corresponding Author: Dr. Sarthak Das, Assistant Professor, Department of Paediatrics, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Karaikal, 609602

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Abstract

Background: Communication is the key component of a satisfactory doctor-patient relationship. Medical students should learn and acquire these skills to become competent clinicians. Although medical graduates may assimilate a few primitive communication skills knowingly or unknowingly during their training by inspecting their elders, colleagues, and associates, these alone are inadequate to execute excellent communication skills for their professional career.

Materials and methods: This cross-sectional study was conducted at Jawaharlal Institute of Postgraduate Medical Education & Research(JIPMER) , Karaikal during February 2018, where an integrated and student-centered Bachelor of Medicine and Bachelor of Surgery (MBBS) curriculum has been followed. The study population

included students who were studying for their MBBS in the second and fourth semester. The medical students' attitudes towards learning communication skills were evaluated by the communication skills attitudes scale, established by Rees and colleagues. All students (n = 97) responded completely (response rate = 100%) and their responses were analyzed.

Results: The mean positive attitude scale (PAS) score was 44.90 of a maximum observed score of 54, and the mean negative attitude scale score was 26.30 with a maximum observed of 40. The PAS score was higher in female students than male students and significantly different ($P = .024$). The score was significantly higher in students who self-reported as an average student than for other groups. Negative scores were significantly lower among

self-reported average students with self-reported good verbal and written communication skills.

Conclusions: Overall our undergraduate medical students had positive attitudes towards learning communication skills, but negative attitudes were also found. Teaching communication skills should be integrated into the MBBS curriculum throughout the four and half year program in India.

Keywords: attitude; communication skill; undergraduate medical students

Introduction : Communication is the key component of a satisfactory doctor-patient relationship [1]. A doctor's positive communication skills are an essential part of excellent patient care and optimal health outcomes, including patient compliance, acceptance, recall and decreased litigation [2,3]. Medical students should learn and acquire these skills to become competent clinicians [1]. Attitudes described as positive or negative are open to interpretation and lead to situations that inspire us to sense and perform toward people in a positive or negative way. The presentation of attitudes is called behavior; there is a strong correlation between attitude and behavior. Modification of attitude will lead to the transformation of an individual's behavior [1]. In medical college, the attitude of the Bachelor of Medicine, Bachelor of Surgery (MBBS) student is immensely affected by the teaching methods and curriculum [1,4]. Although medical graduates may assimilate a few primitive communication skills knowingly or unknowingly during their training by inspecting their elders, colleagues, and associates, these are inadequate to execute excellent communication skills in their professional career. Not all senior doctors are great mentors, nor do they all exhibit great communication skills in their own performance every time [5]. Medical teachers act as both positive and negative examples of behavior in the clinical environment. These activities in the clinical setting by professionals act as an invisible

curriculum that affects students' transformation into a doctor though not directly taught [5]. The medical students' attitudes toward communication skills training have been a major concern for a long time among medical teachers, curriculum planners, and policy makers [3]. Hence, studying medical students' attitudes towards learning communication skills is important for the design of educational programs and experiences aimed at improving these skills [1]. The purpose of this study is to explore the relationships among medical student attitudes toward communication skills training, perceptions of the importance of medical communication, knowledge of appropriate medical communication skills, and their perceived confidence in their ability to communicate effectively with patients. This research intended to investigate the medical students' attitudes towards the learning of communication skills. Further, it explored the correlation of medical students' attitudes with demographics and education-related characteristics (gender, sex, parents that were doctors, and residence area).

Materials and Methods : This cross-sectional study was conducted at Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER), Karaikal during February 2018. Recently, MBBS curriculum was modified to make it integrated and student-centered. The study population included students who were studying for their MBBS in the second and fourth semester. The questionnaires were distributed to all medical students. Written informed consent was obtained from each student. The objective of our study was explained to them before asking them to respond to the questionnaires. All students (n = 97) responded completely (response rate = 100%) and their answers were analyzed.

Measures : Medical students' attitudes towards learning communication skills were evaluated by the communication skills attitudes scale (CSAS) established

by Rees and colleagues [6]. The scale is presented in the Appendix. The positive attitude scale (PAS) score was compiled by cumulating the scores of items four, five, seven, nine, 10, 12, 14, 16, 18, 21, 23, 25 and the reversed score of item 22. The negative attitude scale (NAS) score was achieved by adding the scores of items two, three, six, eight, 11, 13, 15, 17, 19, 20, 24, 26 and the reversed score of item one. Each of these 26 items was evaluated using a five-point Likert scale ranging from ‘strongly agree’ to ‘strongly disagree’. Possible scores for both scales ranged from 13 to 65 with higher scores indicating stronger positive or negative attitudes. Reliability of this tool is ascertained by calculating internal consistency with Cronbach’s alpha. Demographic data was collected and are shown in the Appendix.

Data analysis: Descriptive statistics were adopted to describe the demographic data of the total respondents. The association of the dependent variables (PAS and NAS scores) with the independent variables (demographic and educational characteristics) was determined. One sample Kolmogorov-Smirnov test was used to test the normality of the distribution. Both the PAS and NAS score were normally distributed. Parametric tests (Student’s t-test and analysis of variance) were used to analyze the scores among subgroups of respondents ($P < .05$).

Results: The demographic characteristics of the respondents are shown in Table 1. The majority of the study population was younger than 20 years old, male, belonging to small towns, both parents from non-health related professions, and self-reported as an average student with average verbal communication skill and good written communication skill.

Table 1: Demographic characteristics of the respondents (n=97)

Characteristic	Number (percentage)
Age (in years)	
<20	76 (78.35%)
>20	21 (21.64%)
Gender	
Male	52 (53.6%)
Female	45 (46.4%)
Occupation of father	
Health related	7 (7.2%)
Other	90 (92.8%)
Occupation of mother	
Health related	8 (8.2%)
Homemaker	54 (55.7%)
Other	35 (36.1%)
Place of family residence	
Metro city	30 (30.9%)
Small town	54 (55.7%)
Village	13 (13.4%)
Semester of study	
Second	50 (51.5%)
Fourth	47 (48.5%)
Self-reported as student	
Outstanding	1 (1%)
Good	42 (43.3%)
Average	51 (52.6%)
Poor	3 (3.1%)
Self-reported verbal communication skills	
Excellent	8 (8.2%)
Good	37 (38.1%)
Average	47 (48.5%)
Poor	5 (5.2%)
Self-reported written communication skills	
Excellent	11 (11.3%)
Good	50 (51.5%)
Average	32 (33%)
Poor	4 (4.1%)

The mean PAS score was 44.90 (maximum observed score being 54) and the mean NAS score was 26.30 (maximum observed being 40).

Table 2 shows the mean PAS score among different subgroups of respondents. The PAS score is higher in female students than male students ($P = .024$). The score is significantly higher in students who self-reported as an average student than for other groups. While the score is higher in the age group of those over 20 years old, students whose father's occupation was related to health, mother's occupation was something other than health, those residing in villages, and for those respondents with good self-reported verbal and average self-reported written communication skills, these differences are not significant.

Table 2: Mean PAS score among subgroups of respondents

Characteristic	N	Mean PAS score	Standard Deviation	P value
Age (in years)				
<20	76	44.46	6.586	0.203
>20	21	46.52	6.314	
Gender				
Male	52	43.52	6.551	0.024
Female	45	46.51	6.244	
Occupation of father				
Health related	7	45.71	6.824	0.737
Others	90	44.84	6.565	
Occupation of mother				
Health related	8	45.25	5.726	0.767
Others	35	44.26	6.648	
Homemaker	54	45.28	6.68	
Place of family residence				
Metro city	31	43.87	7.191	0.561
Small town	53	45.32	6.441	
Village	13	45.69	5.583	
Self-reported as student				
Outstanding	1	33	6.293	0.028
Good	42	45.05	6.385	
Average	51	45.53	6.11	
Poor	3	36.33	6.551	
Self-reported verbal				

communication skills				
Excellent	8	45.63	10.322	0.693
Good	37	45.68	5.126	
Average	47	44.43	6.829	
Poor	5	42.6	7.403	
Self-reported written communication skills				
Excellent	11	42.91	6.441	0.723
Good	50	45.22	6.846	
Average	32	45.25	5.924	
Poor	4	43.75	9.359	

Abbreviations: PAS, positive attitude scale.

Table 3 shows the mean NAS score among different subgroups of respondents. Negative scores were lower, but not significantly so, among respondents less than 20 years old, female respondents, respondents whose families were living in a village and for those respondents whose both parents' occupation related to health. Negative scores were significantly lower among self-reported average students and those with self-reported good verbal and written communication skills. The reliability coefficient for each subscale of CSAS was calculated using Cronbach's alpha. The coefficient for PAS was 0.75 while that for NAS was 0.63.

Table 3: Mean NAS score among subgroups of respondents

Characteristic	N	Mean score	Standard Deviation	P value
Age (in years)				
<20	76	26.03	4.636	0.953
>20	21	26.1	5.137	
Gender				
Male	52	26.56	4.7	0.249
Female	45	25.44	4.727	
Occupation of father				
Health related	7	24.71	4.821	0.443
Others	90	26.14	4.725	

Occupation of mother				
Others	35	25.66	4.759	0.446
Health related	8	24.5	3.338	
Homemaker	54	26.52	4.867	
Place of family residence				
Metro city	31	26.9	4.935	0.467
Small town	53	25.68	4.791	
Village	13	25.46	3.886	
Self-reported as student				
Outstanding	1	37	5.084	
Good	42	25.76	3.965	
Average	51	25.63	1.155	
Poor	3	33.33	4.721	
Self-reported verbal communication skills				
Excellent	8	27.5	5.127	0.021
Good	37	24.22	3.78	
Average	47	26.96	4.85	
Poor	5	28.6	6.066	
Self-reported written communication skills				
Excellent	11	27.45	5.067	0.039
Good	50	25.06	4.528	
Average	32	26.44	4.443	
Poor	4	31.25	4.787	

Abbreviations: NAS, negative attitude scale.

Discussion

The study findings can be considered to be a reflection of all undergraduate medical students' attitudes towards communication skills JIPMER, Karaikal. The mean PAS score (44.90) is approximately double the mean NAS score (26.30). The data from this analysis are in favor of a

teaching policy on communication skills in the undergraduate medical curriculum. Supposedly, communication expertise can't be taught [7] – this is the most universal fairy tale with respect to coaching and the training of communication expertise. This analysis specifies that the perception towards communication skills among our students is in a positive direction [3].

In our study, both the mean PAS and NAS scores are comparatively lower than for similar studies done in Nepal, Saudi Arabia, Iran, and at Alexandria University [4,8-10].

In our study, female students acquired more positive ($P < .024$) and less negative attitudes as compared to male students, similar to the studies by Rees et al., Cleland et al., Shankar et al., and Kaufmann et al. [8,11-13]. These studies proposed that female medical students had more positive attitudes toward learning communication skills so more effort is needed to highlight the relevance and usefulness of communication skills among their male peer group. Hence, policies need to be formulated to promote awareness about learning communication skills in general, but especially for male students. However, a gender discrepancy was not observed in studies performed in Nepal and Sri Lanka, respectively [8,14].

Our study emphasizes that PAS score is significantly higher among students who self-reported being an average student as compared to excellent, good and poor. However, this difference was not seen in any other studies [4]. More studies are required to analyze these discrepancies and the associated elements in educational environments.

From a study in a Caribbean medical school, the PAS score was higher among the students whose father's occupation was not related to health—this is similar to our study [4]. Parents with health-related occupation have negative attitudes towards learning communication skills as communication skills were not taught during their

undergraduate training, and their children have been socialized into accepting these negative attitudes [9].

Higher PAS scores and lower NAS scores were found among self-reported average and good students as compared to poor students. Student self-rating was significantly associated with the PAS score. Self-reported average and good students are excellent in communication skills, and their attitude towards communication skill tended towards positive, similar to a study in Malaysia [3]. We propose that self-evaluation as a good student probably acts as an inspiring factor for learning communication skills. Our institute is an institute of national importance and students are from different regions of our country. Also, there are a few international students. They were socialized by being exposed to different environments.

Those with self-reported good verbal and written communication skills students had the lowest NAS scores. This finding suggests that being self-evaluated as good in both verbal and written communication skills is a motivating factor related to lower NAS score. This triggering factor may provoke our undergraduate students to become good communicators and provide support for positive attitudes towards learning communication skills. This observation is unique and not similar to findings from studies done in Saudi Arabia, Pakistan, Sri Lanka, or Nepal [1,3,8,14].

Limitations

Our study population was confined to non-clinical and para-clinical students; our result cannot be generalized among undergraduate students. The sample size is small and evaluated at a single medical college. To obtain better generalizability, further studies should be performed including all non-clinical, para-clinical and clinical students and involve multiple centers in India.

Conclusions

Overall more of our undergraduate medical students had positive attitudes towards learning communication skills, but negative attitudes were also found. There was a correlation between the outcome variable PAS and two explanatory variables—gender and self-reported student quality—that had a significant response in medical students' attitudes towards communication. The correlation of the outcome variable NAS and three explanatory variables self-reported status as students and self-reported verbal and written communication skills had a significant impact on attitudes towards communication. There was a lack of significant correlation between most of the independent variables and either NAS or PAS scores. This was probably due to improvements in worldwide integration. The data suggest that planners of medical education in India should initiate steps for establishing the teaching of communication skills to undergraduate medical students through rational communication technique workshops. Our study adds information regarding the impact of the attitudes of undergraduate medical students towards learning communication skills, highlighting that they probably have an important role in curriculum design. Communication skills teaching should be integrated into the MBBS curriculum throughout the five-year program in India. As per the literature search, our study is the first study in India observing communication skills attitude among medical students and will facilitate more research on this topic.

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Appendix

Communication Skills Attitudes Scale (CSAS)

Please read the following statements about communication skills learning. Indicate whether you agree or disagree with all of the statements by circling the most appropriate response. Remember.

1 . Strongly disagree 2. Disagree 3 . Neutral 4. Agree 5. Strongly agree

1. In order to be a good doctor I must have good communication skills

1 2 3 4 5

2. I can't see the point in learning communication skills

1 2 3 4 5

3. Nobody is going to fail their medical degree for having poor communication skills

1 2 3 4 5

4. Developing my communication skills is just as important as developing my knowledge of medicine

1 2 3 4 5

5. Learning communication skills has helped or will help me respect patients

1 2 3 4 5

6. I haven't got time to learn communication skills

1 2 3 4 5

1 . strongly disagree 2 . disagree 3 . neutral 4 . agree 5 . strongly agree

7. Learning communication skills is interesting

1 2 3 4 5

8. I can't be bothered to turn up to sessions on communication skills

1 2 3 4 5

9. Learning communication skills has helped or will help facilitate my team-working skills

1 2 3 4 5

10. Learning communication skills has improved my ability to communicate with patients

1 2 3 4 5

11. Communication skills teaching states the obvious and then complicates it

1 2 3 4 5

12. Learning communication skills is fun

1 2 3 4 5

13. Learning communication skills is too easy

1 2 3 4 5

14. Learning communication skills has helped or will help me respect my colleagues

1 2 3 4 5

1 . strongly disagree 2 . disagree 3 . neutral 4 . agree 5 . strongly agree

15. I find it difficult to trust information about communication skills given to me by non-clinical lecturers

1 2 3 4 5

16. Learning communication skills has helped or will help me recognise patients' rights regarding confidentiality and informed consent

1 2 3 4 5

17. Communication skills teaching would have a better image if it sounded more like a science subject

1 2 3 4 5

18. When applying for medicine, I thought it was a really good idea to learn communication skills

1 2 3 4 5

19. I don't need good communication skills to be a doctor

1 2 3 4 5

20. I find it hard to admit to having some problems with my communication skills

1 2 3 4 5

21. I think it's really useful learning communication skills on the medical degree

1 2 3 4 5

1 . strongly disagree 2 . disagree 3 . neutral 4 . agree 5 . strongly agree

22. My ability to pass exams will get me through medical school rather than my ability to communicate

1 2 3 4 5

23. Learning communication skills is applicable to learning medicine

1 2 3 4 5

24. I find it difficult to take communication skills learning seriously

1 2 3 4 5

25. Learning communication skills is important because my ability to communicate is a lifelong skill

1 2 3 4 5

26. Communication skills learning should be left to psychology students, not medical students

1 2 3 4 5