

RESEARCH ARTICLE

Assessment of communication skills in the 2nd year MBBS students of a tertiary medical center in Melmaruvathur

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ABSTRACT


Background: Communication is a learned skill and it is a part of medical education which leads changes in clinical practice. Lack of communication between physicians, physician to nurses, and physicians to patients will produce lacunae in delivering proper patient care by misinterpretations. Hence, assessment of communication skill is a must in medical education. **Aim and Objective:** The objective of the study was to assess the communication skills in the 2nd year MBBS students of Melmaruvathur Adhiparasakthi Institute of Medical Sciences (MAPIMS). **Materials and Methods:** This is a cross-sectional study of 2 months duration. Based on the effect size of 0.54 with power of 0.80, the sample size was calculated as 43. The Institutional Ethical Committee approval and informed written consent were obtained. Forty-three 2nd year MBBS students of MAPIMS, who were attending postings (community medicine, general surgery, and obstetrics and gynecology), were included as participants of our study. The 2nd year MBBS students who were not attending the above said postings were excluded from the study. The raters assessed the communication skills of participants by validated questionnaire which contains different variables to assess the communication skills using 5-point rating scales having rating 1 = never to 5 = always. The raters were two physicians, two nurses, and two official clerks. **Results:** Six raters assessed 43 participants. A total of 258 responses were obtained. Inter-rater intraclass correlation Cronbach's alpha shows 0.636 which is an acceptable reliability measure of this study. Multiple comparisons by *post hoc* Scheffe test conclude that there is a significant difference among rater's choice showing that the participants had acquired about not <60% of communication skills. **Conclusion:** Even though the participants had acquired reasonable communication skills during the 2nd year MBBS, they have to improve their interpersonal skills and managing skills during their remaining course period to become an ideal Indian Medical Graduate.

KEY WORDS: Communication Skills; Interpersonal Skills; Managing Skills

INTRODUCTION

Communication is a learned skill and it is a part of medical education which leads changes in clinical practice. Communication skills are essential for the successful future

career of every medical student because it builds confidence, improves rapport, reduces mistakes, and leads to better health outcomes.^[1] Apart from reading and writing, listening skills, expressive skills, and managing skills are also important to make the communication as effective one. If knowledge of medicine and clinical skill is the craft of medical practice, the communications skills are the backbones.^[1] In good medical practice, along with knowledge, clinical skill, competence, and ethics, professionalism with effective communication skills plays an essential role.^[2-4] In professional settings, good interpersonal skills help students more effectively deliver knowledge and ideas, network, and accomplish tasks as a team. Interpersonal skills allow individuals to work with

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others efficiently in multiethnic settings.^[5] The non-verbal communication plays an important role in interpersonal skills groups.^[6] Lack of communication between physicians, physician to nurses, and physicians to patients will produce lacunae in delivering proper patient care by misinterpretations. There are multiple reasons for this kind of misinterpretations such as institutional culture, stressful workplace, lack of defined responsibilities for individual, lack of training as a team, lack of inter-professional meetings, different levels of qualification, personal values, and so on.^[7] In India, usually, the medical students learn communication skills by observation from their senior professors, facilitators, and senior medical students. Before the implementation of competency-based medical education, there were no separate teaching methods followed for training communication skills of medical students.^[1] As a teacher, assessment helps to decide whether the students have acquired adequate communication skills to be able to meet the demands of future real-life situation. As a student, assessment helps to get feedback about their performances and to identify the learning needs of their own.^[8] Both ways, assessing communication skills of medical students is mandatory.

Assessment of communication skills can be conducted in a non-natural examination-like situation and in a true workplace situation. The most desirable way is assessing by the combination of the two. Assessment in examination situations provides students timely feedback and thereby helps to improve. Assessment conducted in a workplace situation with observed feedback gives students practice in different clinical contexts in a non-threatening environment.^[9] Communication skills can be assessed in such a way that it should conform the desired level (shows how or does) of Miller's pyramid.^[9] All the student participants in this study had been taught about the communication skills in course orientation program during their 1st year. Communication skills learned early had proved to increase students' abilities to communicate with patients during the 2nd year while attending clinical postings.^[10] Multisource feedback questionnaire can be used to assess the communication skills of medical students for formative purpose.^[11] Although the 360-degree feedback assessment method has been used widely by trade organization, it has not been used broadly in graduate medical education.

Aim

This study aims to assess the communication skills in the 2nd year MBBS students (2016–2017 batch) of Melmaruvathur Adhiparasakthi Institute of Medical Sciences (MAPIMS).

Objectives

The objectives of the study were as follows:

- To assess intrapersonal skills of the 2nd year MBBS students of MAPIMS
- To assess interpersonal skills of the 2nd year MBBS students of MAPIMS

- To assess listening skills of the 2nd year MBBS students of MAPIMS
- To assess managing skills of the 2nd year MBBS students of MAPIMS.

MATERIALS AND METHODS

Study Design

This was a cross-sectional study.

Study Duration

This study duration was 2 months.

Sample Size

Based on the effect size of 0.54 with power of 0.80, the sample size was calculated as 43.

Inclusion Criteria

Forty-three 2nd year MBBS students of MAPIMS, who were attending clinical postings (community medicine, general surgery, and obstetrics and gynecology), were included as participants of our study.

Exclusion Criteria

The 2nd year MBBS students who were not attending the above said postings were excluded from our study.

After getting the Institutional Ethical Committee Clearance and obtaining informed written consent from the participants, prior meetings were conducted with raters to explain about this project. The participants actually were not knowing that when they were going to be assessed and who the raters were. The raters assessed the communication skills of participants with the help of validated questionnaire which contains different variables to assess the communication skills of participants using 5-point rating scales having rating 1 = never to 5 = always. The raters were two physicians, two nurses, and two official clerks. Inter-rater intraclass correlation and Cronbach's alpha were used to check the reliability.

RESULTS

Forty-three participants were assessed by six raters in about 10 contexts for about 2 months by means of validated questionnaire assessing intrapersonal, interpersonal, listening, and managing skills. In our study, both raters and the participants those being rated understood and accepted the multisource feedback questionnaire assessment. The raters were willing to give sincere evaluations and were ready to maintain the confidentiality of this process. A total of 258 responses were obtained. In Table 1, inter-rater intraclass

correlation Cronbach's alpha shows 0.636 that is 63.6% variation which was same in all the raters and it is an acceptable reliability measure of this study. Multiple comparisons by *post hoc* Scheffe test conclude that there is a significant difference among rater's choice [Table 2] showing that the participants had acquired about not <60% of communication skills that they need to acquire. Among intrapersonal, interpersonal, listening, and managing skills of the participants, they acquired adequate intrapersonal and listening skills, but they need to improve their interpersonal and managing skills during their remaining course period [Table 3].

DISCUSSION

The participants in our study had acquired adequate intrapersonal and listening skills, but they need to improve their interpersonal and managing skills during their remaining course period. As mentioned in Franco *et al.* study, the medical student's active participation is important in developing communication skills during every year of medical course.^[12] In our study, the 2nd year medical students showed their active involvement in communication with patients during their clinical postings.

Intrapersonal skills are the skills or talents that reside within the individual such as punctuality in duties, self-motivation,

self-discipline, and self-monitoring which help to improve their clinician role. Our study participants were assessed by all the raters with standard deviation of 0.22 in intrapersonal skills. Listening skills are the skills that the doctor should be able to speak not only fluently, but he must listen to patient's words by mere patience. Every doctor has their own innate talent in communication, but everyone should improve that by proper training.^[13] In our study, the participants had listening skills with standard deviation of 0.290. Interpersonal skills are the skills of not only effective communication with the patients but also with other physicians, paramedical personnel, and patient's attendees to bring proper diagnosis of illness and thereby giving better treatment. Assessment of acquired interpersonal communication skills makes it possible to give actual feedback to the medical students and drives learning.^[14] Our study participants had acquired interpersonal skills with standard deviation of 0.293 by all the raters. Managing skills are the skills of managing the patient in treatment, disclosing bad news, and responding to irrational behavior of patients. In the absence of addressing these issues, the current medical course curriculum often fails to support the medical graduate to lever these stressors, which repeatedly lead to professional dissatisfaction with undesirable harmful consequences.^[15] However, our study participants had acquired not <60% of managing skills with standard deviation of 0.41. Communication skills improvement can be assessed on 5-point Likert scale which enables the assessment in small changes.^[16]

Meng *et al.* used 360-degree feedback assessment method to assess communication skills for post-anesthesia care unit residents. They concluded that this type of assessment tool is feasible and provides formative feedback to residents about their interpersonal communication skills.^[17] Assessment of

Table 1: Reliability statistics

Cronbach's alpha	Cronbach's alpha based on standardized items	n of items
0.636	0.738	60

The alpha value 0.636 shows that there is 63.6% variation which was same in all the raters

Table 2: Difference among rater choice

Raters	n	Mean±Std. deviation	95% confidence interval for mean		F value
			Lower bound	Upper bound	
1.00	43	3.5581±0.65836	3.3555	3.7608	79.544**
2.00	43	2.9837±0.30545	2.8897	3.0777	
3.00	43	3.3744±0.21613	3.3079	3.4409	
4.00	43	2.6977±0.36351	2.5858	2.8095	
5.00	43	4.2814±0.53464	4.1169	4.4459	
6.00	43	2.8093±0.36827	2.6960	2.9226	
Total	258	3.2841±0.68912	3.1996	3.3686	

Table 3: Assessment of communication skills in the 2nd year MBBS students

Communication skills	n	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference	
					Lower	Upper
Intrapersonal skills	43	3.4444	0.22485	0.03429	3.3752	3.5136
Interpersonal skills	43	3.2413	0.29259	0.04462	3.1512	3.3313
Listening skills	43	3.2481	0.29067	0.04433	3.1586	3.3375
Managing skills	43	3.0465	0.41200	0.06283	2.9197	3.1733

communication skills of medical students should be included in formative as well as summative evaluations.^[18] The peer team rating (PTR) was introduced to PG programs in Sri Lanka in recent times.^[19] Approval of good communication skills for doctors by General Medical Council and the Accreditation Council for Graduate Medical Education-International (ACGME-I) is sturdy. They expect the doctors to be masters in communication skills.^[19]

Understanding of both participants and the raters about this multisource feedback assessment, 100% response rate, active participation by the students, and the maintenance of confidentiality by the raters are the strengths of this study.

Limitations

The smaller number of study participants in a single center and lesser the time period of this study duration may be the limitations for this study. However, by bringing similar longitudinal studies with larger study population in multiple centers will help to assess the communication skills of medical students in a better way.

CONCLUSION

The participants had acquired reasonable (not <60%) intrapersonal skills, interpersonal skills, listening skills, and managing skills during the 2nd year MBBS in MAPIMS. However, they have to improve their communication skills, especially interpersonal skills and managing skills during their remaining course period to become an ideal Indian Medical Graduate. Further longitudinal studies on assessment of communication skills of these participants will help them to learn communication skills in real-life situation during their career.

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