

Enhancing communication and counselling skills of medical undergraduates; A pre and post intervention study

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ABSTRACT

Introduction: Effective communication skills are a core competency for physicians. This study with a pre-post-design was carried out keeping in mind the need to introduce communication & counselling skills training using interactive methods, and its practical application through student- family subject encounters in community setting. **Objective:** To evaluate the effect of teaching communication skills to final year Medical students. **Methodology:** The study was carried out on 79 final year medical students posted for two week rotatory posting in Community medicine. We used a before-and-after design to assess the students' performance in communication skills before and after an intervention, where the short training course on communication skills represented the intervention. The participating students were trained in Communication skills by didactic lectures according to Harvard Medical School (HMS) communication skills tool, Role plays and video screenings & improvement in communication & counselling skills was assessed by Objective Structured Clinical Examination (OSCE) and by observing their interaction with family subjects in allotted families in the community. **Results & Analysis:** Significant improvement in students' communication skills was observed in OSCE ($p < 0.001$). However the improvement in Family setting was not found to be statistically significant ($p > 0.05$) indicating the need for early introduction to formal teaching in communication skills, repeated reinforcement and subsequent assessment to build the competence level communication skills among medical students. **Conclusions:** Teaching communication and counselling skills to medical undergraduates by way of structured sessions will help them imbibe these skills for life.

Key-words: Communication skills, competence, interactive teaching, medical undergraduates.

INTRODUCTION

Effective communication skills benefit physicians and help to improve health outcome in patient care along with an overall impact on burden of disease in the community.¹

Effective communication is becoming increasingly important in present times. Given the complexities of health care, with involvement of larger health care teams and increasing number of available therapeutic options, it is essential that all communication is carried out in a safe manner. There is evidence that, though effective communication improves patient outcomes, doctors are not all ideal communicators and skills of communication can be learned.²

Counselling is an essential component of communication. It is face to face communication by which the health care provider helps the person to make decisions and choices that suit them best. Counselling on health promotion, disease prevention and cure is possible only when the physicians possess adequate knowledge on the topic and are able to transmit that information to the patients satisfactorily. It is particularly important in primary care settings where diagnoses often may be obtained by an attentive history taking alone.^{3, 4}

Moreover, patient outcomes such as drug adherence, patient satisfaction and coping with illness depend, amongst others, on the doctor's communication abilities. As history taking and communication with patients are frequent and essential tasks, these skills should be taught early and repeatedly throughout medical education curriculum.

There is now strong evidence that clinical communication can be effectively taught to and learned by medical students.⁵⁻⁷ The way communication should be taught is highly debated. Most experts share the conviction that good communication skills are not innate and can be learned through intentional, systematic and experiential training.^{8,9} Experiential learning includes role playing, interaction with simulated patient, practice under supervision and observation of self and others' practice.

The perceived benefits of these methods are based on the work of Kolb and Fry who proposed that learning is greatly facilitated when all four "learning environments" are simultaneously employed: affectively oriented (feeling), symbolically oriented (thinking), perceptually oriented (watching) and behaviorally oriented (doing).¹⁰

All these methods when combined with actual practice on patients include all four learning environments.

The present medical education curriculum, lays little emphasis on teaching communication skills to medical students. This study with a pre-post design was carried out keeping in mind the need to introduce communication & counselling skills training using interactive methods, and its practical application through student- family subject encounters in community setting. The objective assessment of effectiveness of such an intervention was also explored in this study.

MATERIAL AND METHODS

The study was carried out on MBBS Final year (Part-I) students posted in batches of 25 each for two week rotatory posting in Community Medicine after obtaining approval from Institutional Ethical Committee (IEC). Of the 100 students in the class, 79 were regular in attendance and were included in the study. We used a before-and-after design to assess the students' performance before and after an intervention, where the short training course on communication skills represented the intervention.

Before the intervention, students had not received any formal training in communication skills in the medical college. Three instructors/facilitators (Two Medical social workers and one PostGraduate student) of the department were trained on basic communication skills using The Harvard Medical School (HMS) Communication Skills Tool,¹¹ adapted from the Bayer-Fetzer Kalamazoo consensus framework.

The Communication skills tool identifies seven broadly supported essential communication competencies, with sub-competencies for each, applicable to most medical encounters and adaptable across specialties, settings and health issues.

The competencies include:

1. Building the patient–doctor relationship;
2. Opening the discussion;
3. Gathering information;
4. Understanding the patient’s perspective;
5. Sharing information;
6. Reaching agreement on problems and plans; and
7. Providing closure

The topics chosen for training in communication & counselling skills were Infant immunisation and Diarrhoea management in a child. The facilitators were trained in counselling for Infant immunisation and Diarrhoea management. The same facilitators observed and evaluated the students in Objective Structured Clinical Examination (OSCE) and observed and evaluated in real family setting.

At the start of the posting, an oral informed consent was taken from all Final year (Part I) medical students. All students underwent an initial assessment of their communication & counselling skills wherein competency in interpersonal and topic specific communication skills was evaluated using OSCE by facilitators using a simplified close ended checklist during which students communicated with a standardized patient who was

trained to portray as the mother of a child requiring immunisation/ diarrhoea management.

Table 1: Day-wise schedule for communication & counselling skills training program

Day 1	Student apprised of the training in communication & Counselling skills Topics discussed and plan of 2-week posting explained to students
Day 2 & 3	Pre-intervention assessment : OSCE
Day 4	Pre-intervention assessment in Family setting: Observation of inter-personal Communication skills in allotted family.
Day 5 & 6	Students trained on: Basic communication skills using HMS Communication skills tool (Inter-personal and topic specific Communication & counselling skills) Importance of communication in medicine Good/ bad communication & counselling skills
Day 6- 10	Practice on family subjects during visits to allotted families
Day 11- 12	Post-intervention assessment: OSCE
Day 13	Post-intervention assessment in family setting : Observation of inter-personal communication skills in allotted families
Day 14	Feedback

There were ten OSCE stations, five each for communication and counselling skills in Infant immunisation and Diarrhoea management. One mark was awarded for correctly performing each item on the checklist & there were only two categories, done and not done for each item on the check list.

Students were also evaluated in the Family study setting only for Interpersonal communication skills at the start of the posting using the checklist for Interpersonal communication skills.

Thereafter students were given a short presentation on Communication skills and Counselling as per the HMS Communication skills tool, specific to Infant immunisation & Management of Diarrhoea by means of didactic lectures. Some counseling scenarios were portrayed by role play and videos were shown to the students to demonstrate and differentiate between good and bad counseling skills. Students were made to practice these communication skills on real family subjects encountered during their visits to allotted families in the community.

These encounters were observed by the same facilitators and feedback was provided on the spot.

A post-intervention OSCE was done at the end of the two week posting and results were compared for objective documentation of the intervention provided. Post-intervention inter-personal communication skills of all students were also assessed in the family setting and graded with the same checklist. The checklist was made by choosing items relevant to the objectives of the teaching session from the HMS communication skills tool.

Student feedback was taken through a questionnaire to know their perceptions regarding the training sessions. The questionnaire included 10 items with 5 point Likert scales ranging from strongly agree to strongly disagree, with one open ended question at the end for any additional comments/suggestions.

Data was analysed to see for any improvement in the students' communication & counselling skills as a result of the intervention. Paired-t test & Chi-square test were performed with probability set at 0.05.

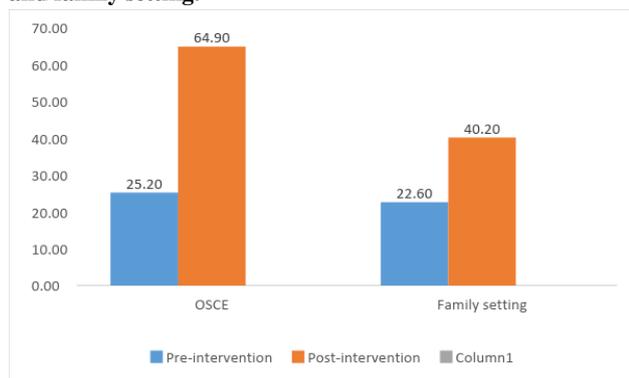
RESULTS

A total of 79 MBBS Final year (Part-I) students participated in this study in 4 batches. There was a significant improvement in communication and counselling skills of students as assessed through OSCE for both Infant immunisation and Diarrhoea management. (Table 2). There was significant improvement (Figure 1) seen in the communication and counselling skills of students after intervention in OSCE ($p < 0.001$). An important part of this study was the assessment of communication and counselling skills of students in the family setting. It was seen that the Post-intervention Mean score (%) in family setting was much lower as compared to the Post-intervention Mean score (%) for OSCE. (40.2 % as against 64.90 %). The difference between Pre and Post intervention Mean scores was not found to be significant ($p > 0.05$) in the family setting. The reasons for unsatisfactory performance of the students in family setting need further exploration. Possibly the structured pattern of Communication and counselling skills is easy to remember and practice in a test surrounding but not so in real life encounters. Students' careless attitude in non-testing environment, language barrier and unease while dealing with non-familiar people may be some of the factors responsible for this difference.

Table 2: Mean pre and post intervention OSCE scores of medical Undergraduates in selected competencies.

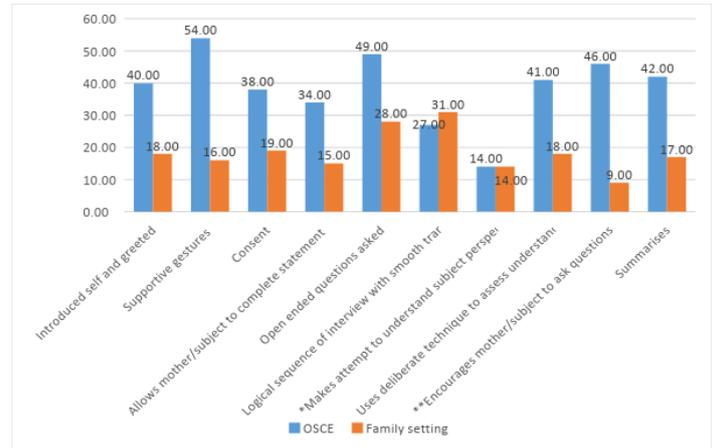
Competency assessed	Mean % Pre-intervention score	SD	Mean % Post-intervention score	SD	p-value by t-test
Communication skills for Infant Immunisation	26.07	7.05	65.31	11.53	0
Communication skills for Diarrhoea management	29.55	11.47	77.34	13.27	0

Figure 1: Mean Pre and post-intervention scores in OSCE and family setting.



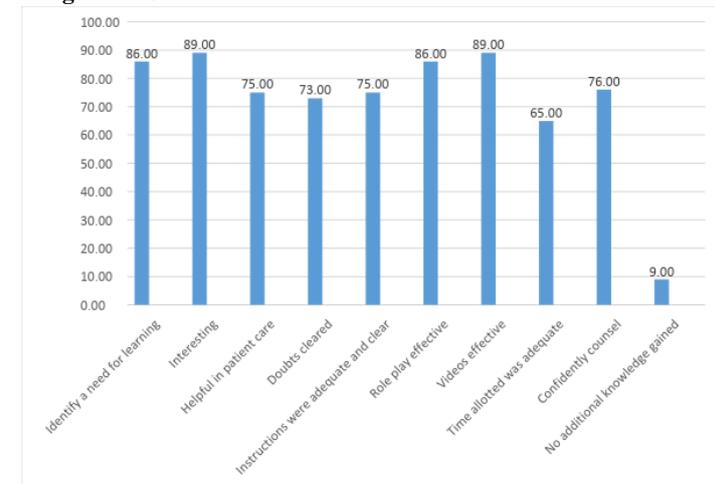
The Post-intervention assessment (Figure 2) showed that there was improvement in the students' communication & counselling skills in both OSCE and family setting. However students' making an attempt to understand Mother/ family subjects perspective did not show any significant improvement in OSCE and family setting ($p > 0.05$) and students' encouraging mother/ family subject to ask questions and clarifications did not show a significant difference in Family setting.

Figure 2: Improvement (%) in Communication skills in OSCE and Family setting



* $p > 0.05$ (OSCE & Family setting)
 ** $p > 0.05$ (Only Family setting)

Figure 3: Students feedback on communication skills



The communication and counselling training sessions improved greeting of mothers, use of supportive gestures, consent taking, allowing mother to complete statement without interrupting, use of open-ended questions and summarising next steps and explaining issues regarding follow-up at the end of their interaction with the mothers during OSCE significantly ($p < 0.001$).

Significant improvement in Communication skills was observed in most of the individual skills in Family setting as well ($p < 0.05$).

The students' feedback (Figure 3) showed that after the training session 86.0% students felt there was a need for learning communication/ counseling skills, 89% found it interesting, 75% felt it will be helpful in patient care, 73% felt their doubts were cleared, 75% felt that the instructions were adequate & clear, 86% felt the Role-plays were effective, 89% felt videos were effective, 65% felt the time allotted was adequate, 76% felt that they will be able to counsel confidently though 9% felt that there was no additional gain in their pre-existing knowledge on Communication skills.

DISCUSSION

It has long been recognised that the nature of medical practice is dependent on the way a doctor communicates with the patient.

During a lecture to medical students in 1899, Osler,¹² a physician stated “It is more important to know what sort of patient has the disease than what disease the patient has.”

Through effective communication, the doctor and patient achieve mutual respect and trust and that is why communication skills are considered to be the essence of clinical practice. Also these are particularly important in primary care settings where diagnoses often may be obtained by an attentive history taking alone. Communication skills teaching and training can be introduced at the beginning of clinical postings in medical college and developed with repeated practice over the years.

Choudhary & Gupta¹³ studied the attitude of fourth year medical students towards learning communication skills. Their study indicates that significantly higher number of students had a positive attitude toward learning communication skills. This is due to the fact that these students are in contact with the patients during clinical posting and begin to understand the importance of effective communication. The results of the present study were found to be in agreement with Though systematic teaching of these skills is challenging during formative years, training in communication during clinical posting can bring these skills to life and allow students and faculty to see their relevance.¹⁴ In the present study we introduced training of Communication skills during the students Family posting where these students can practice their newly acquired skills to improve their clinical competence. It has been argued that communication skills can be taught to medical students as short courses, however this study found that if the acquired skill is not put into practice as a part of curriculum it will be easily forgotten. Community Medicine family posting allows and offers students an opportunity to interact on medical, environmental & social issues with the community. This opportunity can be made use of effectively to hone their communication and counselling skills.

In this study we found that the structured approach through OSCE showed better results as compared to the students’ actual interaction with family subjects where students fumbled to find appropriate words for communication. This further re-emphasises the need for continuous re-inforcement and practice sessions for capturing the essence of effective communication skills.

Interactive teaching learning methods in the form of role play, video demonstrations revealed a positive effect on communication skills of students. Similar findings were observed in a study by Devenguele et al⁴ who used various methods like group discussions in small groups, role play, simulated patients & videotapes of real consultations.

Outcome : What this study adds

- a) Communication is a core clinical skill that can be taught and learned.
- b) Early introduction to formal teaching in communication skills, repeated reinforcement and subsequent

assessment can serve to build the competence level in medical students.

- c) Significant evidence is available of the utility of such initiatives and their potential contribution in producing more effective health care providers.

Limitations:

The present study is not able to predict the exact magnitude of the impact of intervention in view of the “one time” intervention. Repeated practice and assessment on these competencies numerous times over the course of undergraduate training can promote retention and further development of competence in communication skills. Our study is limited by our assessment of their immediate reactions, and not their long-term use of the acquired skills. This is an important limitation.

My Reflections:

- a. **What was good:** The teaching sessions were appreciated by both students and facilitators and even though some findings were insignificant the apparent difference in the communication skills of students were visible in their interactions with the family subjects.
- b. **What could have been done differently:**
 - i. Time management on part of facilitators was difficult as students were assessed in the family setting.
- c. **The road ahead:** The present study was conducted on Final year (Part-I) students. The results would have been better if this was introduced earlier at the beginning of their clinical postings and reinforcement and practice done at all further levels.

CONCLUSION: Teaching communication and counselling skills to medical undergraduates with the help of didactic lectures, role plays and videos along with community exposure may aid in improving their communication skills with special emphasis on understanding the dynamics of feelings and emotions in a doctor–patient communication. Repeated structured sessions are needed in each clinical year and during the internship for a better and more sustained outcome.

IMPLICATIONS: We implemented a study for teaching and assessment to address the increasing professional need for enhanced interpersonal and communication skills training, particularly in the latter years of the undergraduate medical curriculum. Presently the majority of medical colleges do not make use of any framework for teaching and assessing communication skills.

Introduction of communication skill teaching will enable us to collect data regarding the retention of these skills, and whether uniform teaching and assessment over the entire course improves students’ performance.

We hope this study helps to develop a focussed strategy on promoting communication skills as a required competence throughout medical curriculum.

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