A Study to Find the Impact of Communication Skills Intervention in 2nd year MBBS students at One of the Medical Colleges of Ahmedabad

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Abstract :

Introduction: Communication is a fundamental prerequisite of medical profession and bedside clinical skills. It is crucial in ensuring professional success for doctors in the long run. When clinical posting of 2nd MBBS students begin, it's the optimal time they learn/refresh basic principles of communication skills. Objectives: To find out baseline knowledge about communication skills, to impart session of communication skills, to find out effect of session. Method: Project was conducted as part of Problem Solving for Better Health (PSBH) activity. After due permissions, session was pre-planned and arranged with the help of faculty. A validated questionnaire was given to 159 2nd MBBS students as pre-test. Communication skill related education was given through interactive lecture using ppt, roleplay and short films. Same questionnaire was given for post-test. Overall and gender-wise analysis was done separately for knowledge, attitude and total scores. Participants' previous experience and perspectives on subject was also analysed. **Results:** There is significant gain in total score (Pre=10.173; Post=21.336) (z=3.93; p<0.05), knowledge score (Pre=1.289; Post=5.216) (z=18.63; p<0.05) and attitude score (Pre=8.884; Post=16.119) (z=16.2; p<0.05). There is no significant difference between students who have attended (13.2%) such lectures/workshops/seminars and who have not. (z=1.30; p>0.05) Significant difference was found between students who thought that such activity should be in curriculum (81.1%) and those who thought otherwise in pre-test. (z=3.99; p<0.05) **Conclusion:** There is significant gain in knowledge and attitude as seen in post-intervention scores among the students. A series of interactive sessions rather than a didactic lecture, followed by experiential learning will help students gain this skill. Due emphasis in formative and summative exams is suggested.

Key Words: Communication Skills, Doctor-Patient Communication, Medical Students

Introduction:

Effective doctor-patient communication is the foundation of therapeutic doctor-patient relationship, which is the soul of medicine and important part of high-quality health care. Patient dissatisfaction and many complaints are due to doctor-patient miscommunication. However, many doctors tend to overestimate their capability in communication.^[1]

A doctor's communication and interpersonal skills encompass the ability to gather information to facilitate accurate diagnosis, counsel appropriately, give therapeutic instructions, and establish caring relationships with patients. ^[2-4] These are the core clinical skills in the practice of medicine, with the goal of achieving the best outcome of treatment and patient satisfaction. ^[5,6]

Studies on doctor-patient communication have demonstrated patient dissatisfaction even when many doctors considered the communication satisfactory or even excellent. ^[7] "Tongue et al" ^[8] reported that 75% of the orthopaedic surgeons surveyed believed that they communicated satisfactorily with their patients, but only 21% of the patients reported satisfactory communication with their doctors. Patient surveys have consistently shown that they want better communication with their doctors. $\ensuremath{^{[2]}}$

In 2nd year MBBS medical students initiate their clinical posting. So, with clinical posting they should acquire communication skills. This intervention imparts the basic knowledge of communication skills to the 2nd year MBBS students and evaluates impact of the session.

Method:

After getting permission from relevant departments, we conducted this study on all the present students of 2nd MBBS of NHL Medical College, Ahmedabad City, Gujarat. This was an educational interventional study. Sample size for the study was 159 2nd MBBS students, in which all the present students and who gave verbal consent to participate were included and absent students were excluded.

The project was conducted as part of PSBH activity from March 2018 to June 2018. We approached ethical committee, department head and dean of the college for the permissions. Then the session was pre-planned during college hours. We formed a validated questionnaire with the help of faculty members of department. The questionnaire was divided in 2 parts knowledge related questions and attitude related questions. Knowledge related questions were about components of communications, barriers to good communication skills and benefits of good communication skills to doctor & to patients and attitude related questions were about empathy, formal doctor-patient interview and breaking bad news.

After taking the verbal consent of present 2nd MBBS students, the questionnaire was given to 159 students as pre-test. Communication skill related education was given through interactive lecture using power-point presentation, dramatic representation by roleplay and short films. Same questionnaire was given for post-test.

Overall and gender-wise analysis was done separately for knowledge, attitude and total scores with the help of IBM SPSS 20, MS Word and MS Excel software. Score pattern for pre-test and post-test was same. The questionnaire had objective type of questions and they were scored individually. Participants' previous experience and perspectives on subject was also analysed.

Results:

There were total 83(52.2%) male and 76(47.8%) female participants. After data analysis we came to know that 21(13.2%) students have attended this type of seminar/lectures /workshops on communication skills. Mean pre-test score of these students was 10.86 as compare to remaining 138(86.8%) students whose mean pre-test score was 11.87. But there was no significant difference between them, where z=1.30; p>0.05. In the post-test these 21 students scored 18.97(mean) and remaining students scored 21.69(mean). Again, the difference was not significant. Analysis is shown in Figure 1.

Scores		e-test		Post-test				
	Mean	Min.	Max.	Standard Deviation	Mean	Min.	Max.	Standard Deviation
Total Score	10.173	0	19	3.64	21.336	5	32	5.67
Knowledge Score	1.289	0	4	1.10	5.216	0	11	2.42
Attitude Score	8.884	0	19	3.32	16.119	5	24	4.55

Table 1: Comparison between Pre-test and Post-test Scores (N=159)



Figure 1: Knowledge of communication skills amongst students (N=159)

Number of students who thought that such activity should be included in medical curriculum was 129(81.1%) and they scored 10.59(mean) in pretest while remaining 30(18.9%) students scored 7.89(mean) in pre-test. There is significant difference between them in the pre-test, where z=3.99; p<0.05. In the post-test these 129 students scored 21.48(mean) and other students scored 20.68(mean). Again, the difference was not significant. Analysis is shown in figure 2.

Figure 2 : Comparison of Pre-test and Post-test scores between the participants who thought activity should be compulsory included in medical curriculum and who disagreed (N=159)



On asking about their previous experience with treating doctor; out of 159 students, 34(21.4%) students have shared that they have experienced some kind of miscommunication either as a patient or a relative to a patient.

The questionnaire included knowledge-based questions and attitude-based questions. Analysis was carried out separately for knowledge score, attitude score and total score. Overall comparison between pre-test and post-test is given in Table 1. The gain in the post-test scores compared to pre-test scores were 2.09(Total score), 4.05(Knowledge score) and 1.81(Attitude score) times respectively. The difference between pre-test and post-test for total score was statistically significant, where z=3.93; p<0.05. For knowledge score it is also statistically significance, where z=16.2; p<0.05.

The total score of pre-test and post-test is also shown diagrammatically in the figure 3 as a line diagram. Here we can see right shift which means there is significant improvement in the total score.





Gender-wise comparison of total score is given in Table 2. For males the gain was 2.14 and for females the gain was 2.09. Here the difference between pretest and post-test for male participants is statistically significant, where z=7.91; p<0.05. For female participants it is also statistically significant, where

Scores	Gender		Р	re-test		Post-test			
		Mean	Min.	Max.	Standard Deviation	Mean	Min.	Max.	Standard Deviation
Total	Male	9.28	0	17	3.51	19.92	5	29	5.87
Score	Female	10.94	2	19	3.60	22.87	13	32	5.05
Knowledge	Male	0.98	0	3	0.99	4.89	0	11	2.53
Score	Female	1.61	0	4	1.12	5.57	0	11	2.27
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Attitude	Male	8.3	0	17	3.23	15.04	5	23	4.78
Score	Female	9.32	1	19	3.36	17.3	9	24	4.00

Table 2: Gender wise Score Distribution (N=159)

z=24.22; p<0.05. But there was no significant difference between male and female participant in either pre-test or post-test.

While comparing knowledge score for males the gain was 4.99 and for females the gain was 3.46, which can be observed in Table 2. Here the difference between pre-test and post-test for male participants is statistically significant, where z=18.15; p<0.05. For female participants it is also statistically significant, where z=19.73; p<0.05. But there was no significant difference between male and female participant in either pre-test or post-test.

Gender-wise comparison of Attitude Score is given in Table 2. For males the gain was 1.81 and for females the gain was 1.85. Here the difference between pre-test and post-test for male participants is statistically significant, where z=14.73; p<0.05. For female participants it is also statistically significant, where z=19.26; p<0.05. But there was no significant difference between male and female participant in either pre-test or post-test.

Discussion:

Good communication skills are an asset in medical practice. Effective communication wins the confidence and compliance of patients and helps build a healthy doctor-patient relationship. These essential soft skills can be learned during the formative years and practised to perfection over the years. We tried to establish these points by the above project. Students develop communication skills by observing their seniors, teachers and mentors and then practice.^[9]

Substantially less attention in the literature is paid to the development of oral communication skills, whether rehearsed or spontaneous. To our knowledge, very few studies have been conducted on medical students' oral communication skills development and mentoring. Yet, a sizeable literature exists on public speaking anxiety in secondary education and its negative effects on morale, performance, and achievement.^[10-18]

In the questionnaire we asked few questions to assess whether students have attended such lectures / workshops / seminars and their thoughts on importance of communication skills. But there was negligible difference between the students who have attended previously and who haven't. In the pre-test students who thought that such activity should be compulsory included in medical curriculum have scored higher than the students who thought otherwise. So, we can see that there is variance in the score between two contradictory mindsets. When we asked whether they have experienced miscommunication with doctor as a patient, 34(21.4%) students have answered 'Yes', which approves that community has clinicians with poor communication skills. They should improve, and new generation of clinicians should acquire proper clinical communication skills. For that, training should begin with their medical education and it will help to decrease such incidences in future.

When knowledge score was compared between pre-test and post-test there was 4.05 times increase. For male participants there is 4.99 times increase and for female participants there is 3.46 times increase in knowledge score.

Winefeild et al.^[10] did a study on medical students and the result showed that 81% students were prepared for doctor-patient interview with empathy after the session, and we agree to that result. Because in our study when attitude score was compared between pre-test and post-test there was 1.81 times increase. For male participants there is 1.81 times increase and for female participants there is 1.85 times increase in attitude score. Wright et al., studied students' attitude toward learning these skills and compared the attitudes in first- and fourth-year students, found that that fourth-year medical students do not differ from first-year medical students in terms of attitudes toward communication skills training, but they have significantly higher confidence scores about communicating with patients.^[19]

When total score was compared between pre-test and post-test there was 2.09 times increase. For male participants there is 2.14 times increase and for female participants there is 2.09 times increase in total score. Based on our result we can say that imparting lecture about communication skills can help students learn them and apply them in their clinical postings for history taking of general examination.

Conclusion:

There is no significant difference between students who have attended such lectures /

workshops / seminars previously and who have not. There is significant difference between students who thought that such activity should be compulsory included in medical curriculum and who thought otherwise in the pre-test.

When we compare overall results of pre-test and post-test there is significant increase in total score, knowledge score and attitude score.

Gender-wise total score, knowledge score and attitude score is also increased.

So, after the lecture there is marked increase in the communication skills related knowledge and attitude of 2^{nd} MBBS students of NHL Municipal Medical College.

Recommendations:

For improvement of communication skills there should be interactive activities between studentspatients as a part of medical education. If there are any activities already part of medical curriculum they should be made compulsory. Periodic studentsexpert doctor interaction and seminars, workshops or lectures on communications skills should be arranged. A series of interactive sessions rather than a didactic lecture, followed by experiential learning will help students gain this skill. Due emphasis in formative and summative exams is also suggested.

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Conflict of Interest: Nil

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