

A Cross sectional study on Students' Attitude towards Communication Pharmacology in Medical Education

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ABSTRACT

Background: Effective communication between doctor-patient is essential to provide high-quality health care. The introduction of communication skills is a promising step at an undergraduate level by National Medical Commission (NMC) that improve students' attitude towards patient care.

Objectives: The study objective was to assess the student's attitude and their perception towards learning communication skills.

Methods: A total of 122 students participated in the study who were pursuing second-year MBBS in a Medical college located in Telangana State. A Questionnaire related to attitude towards Communication Pharmacology (Communication Skills Attitude Scale), their interest in the topic of choice and reason for their interest in communication pharmacology was given. Using the Likert scale, scores were given ranging from 13 to 65 and the median values of responses were taken for positive and negative attitudes.

Results: The study results showed that the median value of positive response for girls was 56 and for boys was 52 whereas for a negative response was 25 and 27 respectively. There was no significant ($p > 0.05$) difference was observed in the tested groups. The majority of the students opted for empathy-related communication skills as their interest (30.33%) and opined that it will help to build future communication skills (31.33%).

Conclusion: It was concluded that students have a more positive attitude towards communication pharmacology and girls have shown more interest in these types of skills.

KEYWORDS: Communication Pharmacology, Students' Atti-

tude, Medical Education, New Curriculum

INTRODUCTION

The National Medical Commission (NMC), an erstwhile Medical Council of India, has introduced new competency-based medical education since 2019 for medical students. The main thrust of NMC in the new curriculum is the evolution and continuation of improvement in medical education which practically adopts a patient-centric, learner-centric, outcome-oriented and appropriate environment. [1] It deals with multi-divergent aspects of learning methods including attitude, ethics, and communication skills. [2] There is an increased incidence of conflict between doctor and patient relationships. [3] Hence, Good communication skill is a fundamental prerequisite for medical practitioners and bedside skills are crucial in ensuring the professional success of doctors. It is an integral part of the medical profession to grow a trustworthy and meaningful relationship with the patient. [4]

"Medicine is an art whose magic and creative ability have long been recognized as residing in the interpersonal aspects of the patient-physician relationship." [5] The effective doctor-patient relationship makes the diagnosis easy and accurate resulting in effective treatment, speedy recovery and satisfaction for both the doctor and the patient. [6]

There are three important components in effective communication skills such as verbal, nonverbal and paraverbal. The selection of words is an essential step in the verbal component. The non-verbal component deals with body language like facial expressions, body posture and gestures. Para verbal part includes volume, pitch and tone of

voice. Most doctors concentrate only on verbal communication which originally occupies 10 per cent of communication. However, 90 per cent of communication skills will be achieved by nonverbal and paraverbal components.^[7] In the process to achieve effective communication skills, one has to involve in stimulating discussions and reflections about the impact of norms, practices, and cultural habits on the doctor-patient relationship.^[8]

Earlier to the new curriculum, practitioners and senior medical students were the only sources to learn communication skills for undergraduates.^[9] Now, NMC paved the way to adopt these skills in advance by making them part of the curriculum. Despite this fact, the students showed a mixed response to understanding and learning communication skills. It is high time to assess the feedback on students' attitudes towards communication skills for further improvements in the new curriculum. Hence, the present study was undertaken.

Our study focuses on the depth of communication pharmacology to the level where we analysed the effective module in this new practice of pharmacology along with studying the opinion of the students which makes our study novel compared to previous studies. The objectives of the study is to assess the attitude of the students toward communication pharmacology and evaluate their interest in modules in communication pharmacology.

METHODS

Study Design/Setting

A cross-sectional study was conducted among second-phase MBBS students who attended all the classes dealing with communication skills at the RVM Institute of Medical Sciences and Research Centre, Siddipet. These modules were performed in the form of short lectures, role plays, opinion polls, and directly sharing experiences of doctors and patients directly.

Participants

A total of 145 MBBS second-phase students were selected as a sample size based on previous studies. Out of them, 23 students were excluded due to absent from the classes or unwilling to participate in the study. A total of 122 students have participated in the study, 73 girls and 49 boys.

Inclusion criteria: Participants who attended all the classes in communication pharmacology

Exclusion criteria: Students who did not attend all the classes in communication pharmacology and those who were not willing to give consent for the study

Data sources/Measurements

The attitude of the students was assessed upon the completion of all communication module classes by using 'Communication Skills Attitude Scale (CSAS) developed by Rees and colleagues.^[10] A questionnaire containing 26 items

was used of which 13 are positive and 13 are negative statements (Table 1). These statements are arranged in intermingled fashion and not divided into positive and negative statement sections to avoid any kind of subjective bias. All the students responded to their choice on a 5-point Likert scale: Strongly disagree (SD)-1, Disagree(D)-2, Neutral(N)-3, Agree(A)-4, Strongly agree (SA)-5.^[11] Total scores of 13 to 65 were given according to the responses for positive and negative subgroups of statements. As the median is the best measure for the Likert score, we chose a median value of response in both subgroups for female and male students to avoid bias.^[12]

Permission from the Institutional Ethics Committee was obtained and informed consent from the participants was taken prior to the study. In addition, our study also collected the feedback of students about the selection of the best one among the seven competencies of communication pharmacology. They were also advised to give a reason for choosing their option. This data may help to understand the student perspective and can be used for further modifications in these competencies.

Statistical methods: Data were statistically analyzed by using SPSS software and a p-value <0.05 was considered significant. Total scores of positive and negative responses were analyzed among all the students and compared between male and female students.

RESULTS

Total positive and negative responses of 122 students' scores from the Likert scale were arranged in ascending order. The positive response score was falling between 40 and 58 for girls and 47 to 54 for boys. The median value of the positive response score was 52 for boys and 56 for girls. The negative response score range was 22 to 28 for girls and 24 to 29 for boys. The median value of negative response was 27 for boys and 25 for girls.

The analysis of the median score revealed that female students (56) had more positive attitudes towards communication skills compared to male students (52). The negative response score of male students was a little high (27) compared to female students (25). Although the results were insignificant ($p < 0.05$) between male and female students, both groups were having a positive attitude towards the new curriculum (Table 2) (Figure 1).

Another questionnaire was used to assess the interest of the students in various competencies of communication pharmacology. The study subjects have shown their interest in the following order i.e., 30.33% for empathy and ethics on all aspects of drugs, 16.39% for educating the public & patients about drug dependence and Over the counter drugs, 13.11% for motivating patients with chronic diseases to adhere to treatment, 12.30% for demonstrate an understanding of the caution in prescribing drugs likely to produce dependence, 11.48% for communicate with the

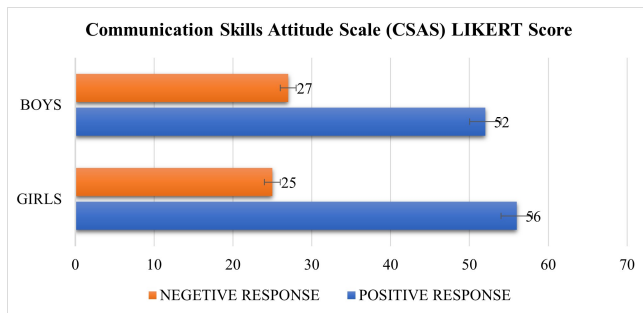


Figure 1: Communication Skills Attitude Scale (CSAS) LIKERT Score

patient regarding optimal use of drug therapy, devices and storage of medicines, and a similar percentage (8.20%) for explain to the patient the relationship between the cost of treatment and patient compliance and demonstrate an understanding of the legal and ethical aspects of prescribing drugs (Table 3).

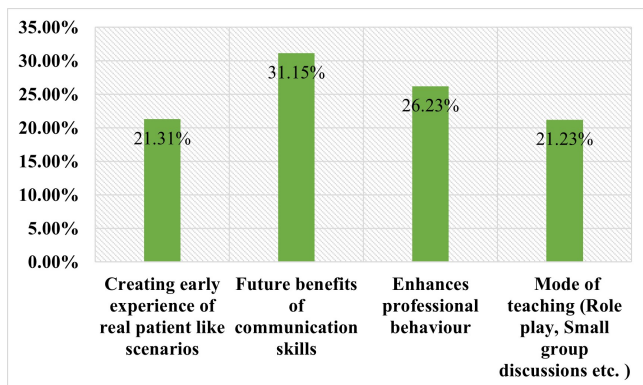


Figure 2: Feedback of students on Communication Pharmacology benefits

Our study also recorded their opinions on their pursuit of interest in communication pharmacology. The majority of the students (31.15%) have opined as it is helpful for future clinical practice to build a good relationship with the patient. Other students expressed as it enhances their professional behaviour (26.23%), and early exposure to patient scenarios (21.31%) and they have added that the mode of teaching is quite enthusiastic and easy to understand the topic (21.23%) (Figure 2).

DISCUSSION

Communication skills are very much important to deliver proper treatment to the patient, understanding the emotional issues underlying them and making patients strictly adhere to the treatment. [13]

The initial phases of MBBS are the most important period to learn the basic fundamental principles of the medical profession before dealing directly with the patients in their clinical posting. [14] Building up communication skills will be of utmost importance during this period. [15, 16] NMC's

new curriculum will enlighten the students in regard to communication skills in prescribing a drug and also address various drug-related concerns.

Our study assessed students' attitudes by using a Communication Skills Attitude Scale (CSAS) questionnaire. [17] They were asked to give their opinion on learning communication pharmacology. There were 27 intermingled questions of positive and negative responses to which the majority of the students gave positive feedback. Furthermore, the insignificant difference was compared between male and female students in terms of their opinion. However, female students have shown more positive attitudes than males. Similar results were observed among the medical students pursuing the medical profession in Nepal. [18]

Our study also analyzed the student perception of learning communication skills. It revealed that most of the students were showing interest in competency in dealing with the patient with empathy and ethics on all aspects of drug use. As per our knowledge, our study is the first study to go through each module in communication pharmacology. We also focused on the Assessment of students' interest in various topics of Communication Pharmacology and the reason for their interest in this type of module in medical education. This will help further to take any necessary improvements in this topic in clinical pharmacology. As per our results, we understood that most of the students felt that learning empathy for the patient is a good communication skill to understand the patient emotional problems along with the disease proper. The majority of students (31.15%) opined as communication pharmacology induces interest and excitement and provides a chance to build communication skills for future clinical practice. Furthermore, it enhances professional behaviour (26.23%), creating the early experience of real patient-like scenarios (21.31%) and effective mode of teaching (21.23%) i.e., Roleplay, small group discussions etc. As a part of the workshop, North-western University's Feinberg School of Medicine conducted a communication skills program through direct narrative interaction of patients through videos which might benefit future budding doctors. [19] Our study suggests that such type of interventions should also be added to the new curriculum to upgrade these skills.

LIMITATIONS

The present study was conducted on a small sample size. Live interaction with patients on communication skills would be more accurate and confirmative to assess the curriculum which was not done in this study.

CONCLUSION

To conclude, most of the students have expressed their positive attitude, especially female subjects towards communication pharmacology, a part of the newly introduced second phase MBBS curriculum. They have been sensitized

to learn the benefits of various components of communication skills for their successful clinical practice in the future.

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STUDY GROUP	POSITIVE RESPONSE	NEGATIVE RESPONSE	p VALUE
Female students	56	25	0.654638*
Male students	52	27	

*A chi-square test has shown no significant ($p > 0.05$) difference in the median values of female and male student groups.

Table 2: Feedback on Students' attitude towards Communication Pharmacology

Topics of Communication Pharmacology	Response of students
Communicating with empathy	37(30.33%)
Communicating about the use of devices and other drug therapies	14(11.48%)
Motivating patients for adhering to treatment	16(13.11%)
Explaining cost-effectiveness	10(8.20%)
Explaining drug dependence	15(12.30%)
Educating about over-the-counter drugs	20(16.39%)
Explaining legal aspects of drug therapy	10(8.20%)

*All the values are expressed in the percentage of students' responses.

Table 3: Assessment of students' interest in various topics of Communication Pharmacology

CSAS statements	SD	D	N	A	SA
In order to be a good doctor, I must have good communication skills	1	2	3	4	5
Developing my communication skills is just as important as developing my knowledge of medicine.	1	2	3	4	5
Learning communication skills has helped or will help me respect patients.	1	2	3	4	5
Learning communication skills has helped or will help facilitate my team-working skills.	1	2	3	4	5
Learning communication skills has improved my ability to communicate with patients.	1	2	3	4	5
Learning communication skills has helped or will help me respect my colleagues.	1	2	3	4	5
Learning communication skills has helped or will help me recognize the patients' rights regarding confidentiality and informed consent.	1	2	3	4	5
I don't need good communication skills to be a doctor.	1	2	3	4	5
I think it's really useful to learn communication skills on the medical degree.	1	2	3	4	5
Learning communication skills is applicable to learning medicine.	1	2	3	4	5
Learning communication skills is important because my ability to communicate is a lifelong skill.	1	2	3	4	5
I can't see the point in learning communication skills.	1	2	3	4	5
I haven't got time to learn communication skills.	1	2	3	4	5
I can't be bothered to turn up to sessions on communication skills.	1	2	3	4	5
I find it difficult to trust information about communication skills given to me by non-clinical lecturers.	1	2	3	4	5
After I was accepted and enrolled in medical school, I thought it was a really good idea to learn communication skills.	1	2	3	4	5
Communication skills learning should be left to psychology students, not medical students.	1	2	3	4	5
Learning communication skills is interesting.	1	2	3	4	5
Learning communication skills is fun.	1	2	3	4	5
Learning communication skills is too easy.	1	2	3	4	5
Communication skills teaching would have a better image if it sounded more like a science subject.	1	2	3	4	5
I find it difficult to take communication skills learning seriously. Overconfidence	1	2	3	4	5
Nobody is going to fail his/her medical degree for having poor communication skills.	1	2	3	4	5
I find it hard to admit having some problems with my communication skills.	1	2	3	4	5
My ability to pass exams will get me through medical school rather than my ability to communicate.	1	2	3	4	5

SD- strongly disagree, D-disagree, N- neutral, A-agree, SA- strongly agree

Table 1: Communication Skills Attitude Scale (CSAS) Questionnaire

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