Research Article

Training of medical students in communication skills for health education

Jayashree S Seeri, Savita S Patil

Department of Community Medicine, BGS Global Institute of Medical Sciences, Bengaluru, Karnataka, India

Correspondence to: Savita S Patil, E-mail: savitayar@gmail.com

Received: April 24, 2018; **Accepted:** May 11, 2018

ABSTRACT

Background: Basic medical graduate must possess skills of communication in health education for health promotion. There is a little scope for formal training in communication in health education in the current curriculum. **Objectives:** The objectives of this study were to assess the communication skills of undergraduates in health education and to assess the role of modular training in improving their communication skills. **Materials and Methods:** An interventional study conducted in a medical college in South India. A total of 88 2nd year medical students underwent four theory classes on health education. They were subsequently divided into two groups of 44 each. The intervention group underwent modular training for four sessions of 2 h duration each which included demonstration, video play, focused group discussion, and role play. The control group underwent repeat theory classes. All the students performed health education session of 15 min duration and were assessed by standardized blinded assessors using a questionnaire. Proportions and Z-tests were applied using SPSS (17.0). **Results:** Majority of the students in both the groups performed well in verbal communication skills such as clarity of speech (72.3% in control and 89.7% in intervention group) and being audible (84.1% in control and 89.7% in intervention group). Both the groups lacked non-verbal skills of interaction and involving the audience in discussion (45.5% in control and 43.6% in intervention group). There was no significant difference between the intervention and control groups in any of the parameters. **Conclusion:** Communication skills in health education among 2nd year medical students are poor. Short-term training has no effect in improving their communication skills.

KEY WORDS: Health Education; Communication Skills; Training

INTRODUCTION

The "graduate medical regulations 2012" of the medical council of India proposes to create an "Indian medical graduate" who is able to function effectively as a communicator besides being member of health-care team, leader, clinician, lifelong learner, and a professional.[1] Acquiring communicative competence is an important goal of medical education. Communicative competence is imperative in all the aspects of health care, be it communicating with the patients, caregivers, health-care team, or in providing health education. Health education is an undisputed major tool for providing preventive and promotive services. Health education as a tool for health promotion is critical for improving the health of populations. The World Health Organization defined Health Education as "comprising of consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health."[2] To achieve the competencies of a health educator, an individual must have various attributes, the most important one being effective communication skills. The current MBBS curriculum includes only theoretical aspects of health education, and there is no scope for practical training of communication skills. Students learn their communication skills by their teachers and peer as a

Access this article online	
Website: http://www.ijmsph.com	Quick Response code
DOI: 10.5455/ijmsph.2018.051411105042018	

part of hidden curriculum. There have been numerous studies involving formal training and assessing of communication skills of undergraduate students with respect to doctor-patient communication.[3-6] However, there very few studies with regard to the role of communication skills in health education. It is very important to know the health education skills of the students and their weak areas to improve their performance. It is also important to develop a training program to suit these needs. With this background, the current study was designed with the following objectives:

1. To assess the communication skills of undergraduates in health education, and
2. To determine the role of modular training in improving the communication skills in health education.

MATERIALS AND METHODS

The study was conducted in a medical college in South India during 2015–16. Ethical clearance was obtained by the Institutional Ethics Committee. A total of 88 2nd year MBBS students were included in the study. A module was developed for training the students in communication skills for health education in consultation with the public health specialists. The module was designed with four sessions lasting for 2 h each which included practical demonstrations, video presentations, and focus group discussions. A checklist was prepared to assess the communication skills which was peer-reviewed by the faculty of community medicine. The checklist contained 27 items with closed-ended yes/no type response. The questions included assessment of the verbal skills such as the tone, speed, and voice modulation and non-verbal skills such as body language and interaction. Following informed consent, all the students went through series of four lecture classes on health education as per the university curriculum. Subsequently, the students were randomly divided into two groups of 44 each. One group underwent intervention in the form of modular training for communication skills in health education. Four sessions were conducted 1 week apart with each session lasting for 2 h. The first session was a practical demonstration of communication skills in health education. All the aspects of the verbal and non-verbal communication were stressed on using a commentator in the background. The second session was video play demonstration on health education. The video demonstration was followed by discussion and reflections regarding the videos. The third session was a focused group discussion facilitated by the faculty. Final session was a role play by the students and faculty reflections on the same. The second group underwent repeat theory sessions on health education to nullify the effect of reinforcement in the intervention group. All the students were assigned a topic of their choice to conduct a health education session of 15 min duration 4 weeks following the intervention. Students from both the batches were clubbed and randomly divided into four batches of 22 each. Four sets of trained faculty with four each in a group were assigned the task of assessing the students with the given checklist. The students performed the health education session before standardized audience and the assessors. The assessors filled the checklist independently and later matched their entries and came to consensus following discussion in case of any discrepancies. The assessors were blinded with regard to the training status of the students. Feedback was obtained from the assessors with regard to the limitations of the assessment.

Statistical Analysis

The data obtained were tabulated and analyzed using SPSS version 17. The data were analyzed with proportions in terms of percentages, and Z-test was applied to determine the difference in performance between the intervention and control groups. $P \leq 0.05$ was considered statistically significant.

RESULTS

A total of 88 students were participated in the study. There were 5 dropouts in the intervention group, and the final sample size was 44 in the control and 39 in the intervention group. All the students belonged to 2nd year MBBS. They were in the age group of 20–23 years with mean age of 21.33 years. There were 29 (74.4%) girls and 10 (25.6%) boys in the intervention and 30 (68.2%) girls and 14 (31.8%) boys in the control group. Table 1a and b represents the performance of the students as per the checklist. Majority of the students in both the groups performed well with regard to their verbal skills such as clarity of speech (72.3% in control and 89.7% in intervention group) and being audible (84.1% in control and 89.7% in intervention group). Both the groups maintained good eye contact (75% and 82.1%) and introduced themselves and the topic well (72.7% in control and 79.5% in intervention group). However, both the groups lacked skills of interaction and involving the audience in the discussion (45.5% in control and 43.6% in intervention group). Majority of them failed to elicit any barriers in understanding (54.5% in control and 33.3% in intervention group) or reinforce the message (27.3% in control and 17.9% in intervention group). There was no significant difference in the performance between the intervention and control groups in any of the parameters. Majority of the assessors opined that process of assessment was time consuming and could be biased in a simulated setting than real life situation.

DISCUSSION

Among 88 2nd year medical students, in the age group of 20–23 years, the mean age was around 21 years. There was no significant difference in gender between control and intervention groups. Majority of the students in both the groups performed well with regard to their verbal skills such as clarity of speech and being audible. There was no

Table 1a: Comparison of performance indicator between intervention and control groups

Particulars	Yes (%)		Z	P
	Control, *n*=44	Intervention, *n*=39		
The patients were seated comfortably so that everybody could see presenter	34 (77.3)	31 (79.5)	−0.24	>0.05
The student used a participatory method	20 (45.5)	17 (43.6)	−0.17	>0.05
The student used proper eye contact with everyone?	33 (75)	32 (2.1)	−0.78	>0.05
The student used changes in voice intonation (not monotone?)	25 (56.8)	26 (66.7)	−0.92	>0.05
The student moved around the room without distracting the group?	9 (20.5)	13 (33.3)	−1.32	>0.05
The student used props	26 (59.1)	21 (53.8)	0.48	>0.05
The student use verification questions (verifying that people understood the main points through the use of open-ended questions)?	24 (54.5	13 (33.3)	1.94	>0.05
The student summarized the essential points presented at the end?	14 (31.8	14 (35.9)	−0.39	>0.05
The student asked questions?	35 (79.5	23 (59.0)	2.04	<0.05

Table 1b: Comparison of performance indicator between intervention and control groups

Particulars	Control			Intervention			Z	P
	n	Yes	%	n	Yes	%		
The student gave participants adequate time to answer questions?	35	30	78.9	25	21	84	−0.49	0.62
The student encouraged comments by paraphrasing what people said (repeating statements in his or her own words)?	36	13	36.1	24	12	50	−1.07	0.28
The student asked participants if they agree with other participants' responses.	28	10	35.7	23	12	52.2	−1.18	0.24
The student encouraged comments by nodding, smiling, or other actions that showed that s/he was listening?	34	28	82.4	25	23	92	−1.07	0.28
The student always replied to participants in a courteous and diplomatic way?	31	29	93.6	21	18	85.7	0.94	0.35
The student prevented domination of the discussion by one or two people?	14	2	14.3	11	3	27.3	−0.80	0.42
The student encouraged timid participants to speak/participate?	18	10	5.6	20	6	30	1.59	0.11
The student summarized the discussion?	44	14	31.8	39	10	25.6	0.62	0.54
The student reinforced statements by sharing relevant personal experience or asking others to share personal experience?	44	12	27.3	39	7	17.9	1.01	0.31
The student used questions to determine if participants had any barriers to carry out the new behaviors being promoted?	40	4	9.09	39	2	5.1	0.70	0.48
The student made suggestions to help participants to work through any barriers they mentioned?	36	4	11.1	32	2	5.6	0.70	0.48
The student asked people to verbally commit to the promoted behaviors?	44	2	4.5	39	1	2.6	0.48	0.63
The student explained to the participants when the next educational session would be?	44	1	2.2	39	0	0	0.95	0.34

significant difference in the performance between the intervention and control groups in any of the parameters. Majority of the assessors opined that process of assessment was time consuming and could be biased in a simulated setting than real life situation.

It is of paramount importance that health-care professionals who work in primary health-care institutions have the requisite knowledge, experience, and skills to promote health and to inform society through counseling about proper health-promoting lifestyle behaviors.[7] The health education skill of primary care physician, thus, is of paramount importance in this regard. This calls for adequate training and assessment of health education skills to be included in the undergraduate curriculum.

There have been various models for teaching and assessing communication skills in clinical setup including the established ones such as Calgary-Cambridge Observation Guide[8] and the SEGUE Framework[9] for teaching and assessing communication skills. Studies related to various aspects of doctor-patient communication such as interviewing techniques, counseling, and prescription showed a significant improvement following intervention. In a study done by Iqbal *et al.*,[4] a 4-day workshop was conducted on final year MBBS students and the Calgary-Cambridge Guide for communication process was used to identify the 10 skills for assessment. The author found a significant improvement in the communication skills in aspects such as reacting to queries, avoiding jargons, and summarizing. Similarly in a study by Choudhary and Gupta,[5] there was a significant improvement in patient communication and students showed positive attitude toward training course in communication. However, these models do not address the training of communication

skills in a health education setting. The present study is an attempt to addresses the issue of training of students in health education using appropriate communication skills. In a similar study on training of 3rd year medical students in immunization counseling skills, the author found a significant improvement in information sharing, listening skills, and advising regarding follow-up immunization.[10] In a study done on family medicine trainers, they perceived that teaching communication skills were important but challenging. They also felt that there must be established teaching curriculum and assessment must be a part of it.[11] The Vision 2015 document of the MCI has scheduled a dedicated time for training in communication skills for Indian medical graduates.[12] The possibility of retention and internalization of skills is questionable in case of such timed training programs. There are studies which have proved that the communication skill of medical graduates progressively deteriorates when not reinforced periodically.[13] Training and assessment of communication skills must happen as a longitudinal program throughout the course of the study. It must be included across the disciplines and must be assessed at different levels. One such model has been developed by Modi *et al*. which has a scope for communication in health education designed in the third phase of the undergraduate course. The model proposes training across the curriculum from the first phase to the third phase by progressively increasing the complexity level which is also supplemented with appropriate assessment plan at all levels.[14]

Strength and Limitations of this Study

Strengths

There are very few studies with regard to the role of communication skills in health education among the medical students, and the current study addresses this issue by an interventional study design.

Limitations

Assessment of health education was done in a simulated setting, and the results could differ in real life situation setting. Assessment of the long-term effect of intervention was not performed.

CONCLUSIONS

Although health education still remains one of the most important faculties of health promotion, the current medical students have poor communication skills in health education. Short duration training sessions have no impact on improving their communication skills. Teaching and learning of communication skills must happen in integration with all the disciplines longitudinally and must be included for assessment at all levels.

ACKNOWLEDGMENTS

The authors would like to thank Principal, Faculty Department of Community Medicine, and students of BGS GIMS.

REFERENCES

1. Medical Council of India Regulations on Graduate Medical Education; 2012. Available from: https://www.mciindia.org/documents/rulesAndRegulations/GME_regulations.pdf. [Last accessed on 2016 Jul 15].
2. Joint Committee on Terminology. Report of the 2000 joint committee on health education and promotion terminology. Am J Health Educ 2001;32:89-103.
3. Doherty E, O'Boyle CA, Shannon W, Mcgee H, Bury G. Communication skills training in undergraduate medicine. Irish Med J 1990;83:54-6.
4. Iqbal N, Mookkappan S, Basheer A, Kandasamy R. Impact of focused training on communication skills of final-year medical students in a medical school in India. AMJ 2015;8:325-32.
5. Choudhary A, Gupta V. Teaching communication skills to medical students: Introducing the fine art of medical practice. Int J Appl Basic Med Res 2015;5:41-4.
6. Lee YM, Lee YH. Evaluating the short-term effects of a communication skills program for preclinical medical students Korean J Med Educ 2014;26:179-87.
7. Kabasakal E, Kublay G. Health education and health promotion skills of health care professionals working in family health centers. Int J Med Res Health Sci 2017;6:22-8.
8. Kurtz SM, Silverman JD. The Calgary-Cambridge referenced observation guides: An aid to defining the curriculum and organizing the teaching in communication training programmes. Med Educ 1996;30:83-9.
9. Makoul G. The SEGUE framework for teaching and assessing communication skills. Patient Educ Couns 2001;45:23-34.
10. Patil SP, Tambe MP, Patil PJ. Effect of immunization counseling skills training in third-year medical students. Int J Med Sci Public Health 2015;4;858-62.
11. Al-Momen R, Al-Battal S, Mishriky A. Teaching communication skills in family medicine: A qualitative study. Int J Med Sci Public Health 2015;4:56-60.
12. Vision 2015. Medical Council of India. 2011. Available from: http://www.mciindia.org/tools/announcement/MCI_booklet.pdf. [Last accessed on 2017 Jun 10].
13. Rider EA, Hinrichs MM, Lown BA. A model for communication skills assessment across the undergraduate curriculum. Med Teach 2006;28:127-34.
14. Modi JN, Chhatwal AJ, Gupta P, Singh T. Teaching and assessing communication skills in medical undergraduate training. Indian Pediatr 2016;2:497-504.

How to cite this article: Seeri JS, Patil SS. Training of medical students in communication skills for health education. Int J Med Sci Public Health 2018;7(8):671-674.

Source of Support: Nil, **Conflict of Interest:** None declared.