Short Communication

Assessment of Communication Skills in MBBS Interns with Objective Structured Video Examination (OSVE)

Megha Luthra, Puneet Ohri, Utkarsh Sharma[1], Ashwani Sharma, Soumya Mohanty, Sonam Maheshwari[2]

Departments of Community Medicine and [1]Paediatrics, Shri Guru Ram Rai Institute of Medical and Health Sciences, Dehradun, Uttarakhand, [2]Department of Community Medicine, Government Doon Medical College, Dehradun, Uttarakhand, India

Abstract

Background: Medical graduates enter work force with substantial knowledge but are they prepared for practice in diverse settings? To train medical interns in communication skills using Demonstration Observation Assistance and Performance (DOAP) and to assess communication skills in medical interns using objective structured video examination (OSVE). **Methods and Materials:** DOAP sessions of all 27 interns posted in Community Medicine and Pediatrics departments during the duration of the study were conducted in six clinical scenarios followed by two OSVEs. **Methods and Material:** Interns performed selected activity independently twice for assessments. Videos submitted by interns were assessed by Gap Kalamazoo assessment forms (OSVE). Data analysis was done by appropriate methods. Percentages and proportions and calculation of median scores with interquartile ranges. **Results:** Seventy one point four percent of faculty and 96.3% of interns were satisfied with module implementation. More than = 57.8% marks were scored by 94.45% interns in self-assessment and faculty assessment and by 100% interns in patient assessment. Median scores of all second assessments were higher. **Conclusions:** DOAP method is good for training of interns in communication skills. OSVE may be an appropriate assessment tool as it leads to progression in learning.

Keywords: Communication skills, DOAP, OSVE

Introduction

Medical graduates enter the work force with knowledge but their preparedness for practice in diverse settings is questioned.[1] We must track whether they are progressing in their learning of communication skills or not.[2,3] Gap Kalamazoo communication skills assessment form[4] has been used widely to this effect. Good communication between doctor and patient positively affects patient compliance, incidence of violence and court cases,[5,6] disease prognosis, and client satisfaction.

Students require assistance to critically analyze and gain from the observed gap in their own communication skills during training and clinical practice.[7] Promotion of training in and appraisal of communication skills is required during undergraduate medical education in a longitudinal manner, up till workplace, for effective learning. Meagre-published literature is available regarding this progress. However, in a study conducted by Humphris and Kaney in 2001, it was observed that medical students became better in communication skills through nearly 1.5 years of their undergraduate training between early and mid-stages of the curriculum through assessment.[8]

Traditionally written assessments and later Objective Structured Clinical Examination (OSCE) have been cornerstones of communication skills assessment. Latter has expenditure of reimbursing standardized patients and cost of organizing and carrying out the stations. For Accreditation Council for Graduate Medical Education mandate and medical licensing examination process, geriatric-focused Objective Structured Video Examinations (OSVEs) were created in Wisconsin to valuate postgraduate medical students' comprehension of

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Address for correspondence: Dr. Megha Luthra, Professor, Department of Community Medicine, SGRRIM and HS, Patel Nagar, Dehradun - 248 001, Uttarakhand, India.
E-mail: drmeghaluhtra9@gmail.com

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competencies exhibited through videos of professionalism, systems-based practice, etc. More than 90% state-wide faculty gave allegiance to use OSVEs in postgraduate medical training.[9]

With the growth of affordable nonanalog videos, motion pictures provide another option to the traditional OSCE to appraise students' achievement in communication skills domain. A program known as Academic Medical Centre Communication Test was built and used in Amsterdam, the Netherlands, using OSVE framework for evaluating communication skills. This computer-assisted assessment program requires assessment of inherent knowledge-based playscripts of communication conduct.[10]

OSVE is not only a substitute to the OSCE but also an improvement. It can fortify the assessment process of communication skills domain and can possibly be used as a better option to an elementary written examination of communication skills.[11]

In addition to above, paucity of recent literary studies on application of OSVE during internship leads to this study with an aim to assess communication skills in MBBS interns with OSVE.

Subjects and Methods

Institutional Research and Ethical Committee (Registration No. ECR/710/Inst/UK/2015/RR-21) permission was obtained and sensitization of concerned faculty members was carried out. Discussions for development of communication skills training module and forms for the project were held among investigators. Validation of forms (pretraining and post-training survey forms for interns, feedback, and interview forms for faculty and patients) was done by independent faculty members. Final step-by-step module for training and assessing interns in communication skills, taking feedback from interns, faculty, and patients as per outcomes of the project, was developed. Interns posted in Departments of Community Medicine and Pediatrics were selected by total enumeration method.

Informed consent of interns was taken. Implementation of the communication skills module was done by conducting Demonstration Observation Assistance and Performance (DOAP) sessions of 27 interns in six scenarios (determining socioeconomic status of family, giving contraceptive advice to eligible couple, obtaining immunization history from mother of infant, Kangaroo Mother Care counselling, breast feeding counselling, and infant feeding counselling to mothers). Audio-video recordings of trained health workers communicating with standardized/real patients with informed consent were used for demonstration. Two independent observers attended these sessions. Interns filled presurgery and postsurvey forms with questions for all six scenarios. They performed an independent activity of selected scenario during a mid-posting and another end of posting assessment. Informed consent was obtained from patients beforehand. Counselling sessions were video-recorded and shared by interns with the investigators and were assessed by Clinician/Faculty, Self-assessment, and Patient/Family versions of Gap Kalamazoo communication skills assessment form after due permissions.[4] Review of records was done regarding satisfaction with interns' training and performance. Data were analyzed with percentages and proportions and calculation of median scores with IQRs.

Results

Twenty seven interns who were posted in Departments of Community Medicine and Pediatrics during the length of project (January 1, 2021 to January 24, 2022) were included.

Table 1 shows that confidence of most interns in executing given scenarios increased following the DOAP sessions. Same is reflected in presurgery and postsurvey median score which increased from 12 to 14. Hence, the proportion of interns showing increased confidence is more in the post test.

Table 2 shows the number of interns scoring in each marks range. It can be inferred that an average of 94.45% interns scored > = 57.8% (26) marks for self-assessment and median score for second assessment improved from 30 to 35. Similar results were seen in faculty assessment and median score for second assessment improved from 29 to 34. All interns (100%) scored > = 57.8% (26) marks for patient assessment and median score for second assessment improved from 31 to 36.

Table 3 shows that 71.4% of faculty members and 96.3% of interns were satisfied with implementation of communication skills module. Hence, the proportion of interns and faculty members satisfied with implementation of the module is good (more than 70/100).

Discussion

Many theories explain communication skills. Kalamazoo declaration is a consensus statement from different experts in this field. It furnishes a noncomplex model and accosts the necessary components of communication in healthcare. These components are building relationship, opening discussion, gathering information, understanding patient's perspective, sharing information, reaching agreement on problems and plans, and providing closure.[12]

Attitude ethics and communication (AETCOM) module notes several ways to foster communication skills in MBBS students. However, new Competency-Based Medical Education

Table 1: Pre and post DOAP training survey scores of interns

Score	No. of interns in pre survey	No. of interns in post survey
8-10	4	0
11-13	18	11
14-16	5	16
Median Score (IQR)	12 (11,13)	14 (13,15)

Table 2: OSVE scores of interns

Score	Number of Interns Having the Score					
	Self-Assessment		Faculty Assessment		Patient Assessment	
	OSVE 1	OSVE 2	OSVE 1	OSVE 2	OSVE 1	OSVE 2
21-25	3	0	3	0	0	0
26-30	15	1	19	4	6	0
31-35	7	15	2	18	19	8
36-40	2	10	2	3	1	19
41-45	0	1	1	2	1	0
Median Score (IQR)	30 (28, 33)	35 (33, 38)	29 (27, 32)	34 (32, 37)	31 (29, 34)	36 (34, 39)

Table 3: Communication skills module implementation

Indicator	Level of Attainment	Data Source	Data Collection Method
Faculty Satisfaction	71.4%	Faculty	Feedback Forms
Interns' Satisfaction	96.3%	Interns	Post Survey Forms

curriculum documents use of DOAP for development of skills.[13]

Methods close to DOAP sessions for teaching communication skills have been mentioned in another study from London conducted by Maguire *et al.* (1977) in Aspegren K (1999).[14] Here, trainees first scan and interpret introductory text and then attend a videotaped demonstration of a consultation by a trainer, followed by repetition of same consultation by another trainee and a group discussion.

Many innovations have been tried, for example, longitudinal communication curriculum in years 1 to 4, video tape of student interviews (year 3), Balint sessions (year 3), home visit with chronically ill patient (year 3) for teaching, and family-centered OSCE (including three stations) and student written program ratings for assessment at university of Wisconsin.[15]

National Medical Council of India mentions DOAP sessions for teaching competencies related to this project (CM 2.1, OG 19.2, and PE 19.12).[16]

Hence, confidence of most interns in executing the six scenarios increased following the DOAP training sessions.

A good number of studies shows the students video clips of standardized patients as an OSCE station and then subject the student to relevant questions which may not necessarily be for communication skills alone, a difference from the methodology of this project.[17,18] Teaching learning methods for communication skills, however, lack a mention.

On the other hand, a definite improvement was noticed in median scores for second OSVE assessments. Likewise, utility for OSVE to demonstrate progression in learning for communication skills is well established by the Liverpool experiments.[9,12]

Implications of this study lie in "transfer of skills to work-place".[5,8] There is a definite gap perceived even by the students that communication skills learnt by them in the preparatory phase and their genuine conduct in clinical settings differs. This is because clinical circumstances demand a consolidation of clinical and communication skills learnt previously.

Limitations

Reduced number of interns were available due to hospital postings in the COVID-19 pandemic. The project had to be carried out in Outpatient Department (OPD) setting with standardized/simulated patients instead of the family setting as originally planned as family visits were stopped in the pandemic.

Conclusion

Communication skills module thus developed is a potential step in right direction as far as channelization of student accomplishments to scientifically detached work environment is concerned. DOAP method can be used in internship as well. OSVE can help interns to mull over (reflect) and pick up learning points from the observed gaps in communication patterns during training versus clinical practice.

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Key messages

- Gap exists in communication skills during training and clinical practice.
- DOAP method can be used in internship.
- OSVE can help interns to reflect on and gain from observed gaps in training versus clinical practice.

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Conflicts of interest

There are no conflicts of interest.

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