

# Use of interactive teaching methods in tobacco cessation program and examine it by using objective structured clinical exam

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## ABSTRACT

**Background:** Tobacco addiction is an important public health issue. It is important for health professional to counsel the tobacco users for cessation. **Aim:** To enhance communication skills of MBBS (Bachelor of Medicine and Bachelor of Surgery) students in counseling of tobacco users by using interactive teaching methods and examine it by using OSCE. **Materials and Methods:** It was a before and after comparison study. Communication skills of students were examined by standardized patients (investigators) by objective structured clinical examination (OSCE) method before and after intervention. All the students were trained to enhance the communication skills by role play, interactive session, anecdotes. Statistical analysis was done by using Paired *t*-test. **Results:** The difference in scores at all the 3 stations before and after the intervention and also global scores before and after the intervention was statistically highly significant ( $P = 0.0001$ ). **Conclusion and Recommendation:** Communication skills of students in counseling tobacco users improved after they were given role play, interactive session, anecdotes. Similar model can be used to improve the communication/counseling skills in other important health hazards.

**Key words:** Communication skills, counseling, medical students, objective structured clinical exam, tobacco users

## INTRODUCTION

Tobacco is one of the leading causes of disease and death in the world. It is responsible for a range of respiratory, cardiovascular, and reproductive tract disorders, in addition

to cancer of different sites in the body. In India, tobacco consumption is widely prevalent and culturally accepted. India has the highest number of oral cancer cases in the world, with tobacco being popular in smokeless forms as well. It is estimated that in year 2005, 143,963 Indians would have been diagnosed with oral and pharyngeal cancers and 91,029 would have died of the disease.<sup>[1]</sup>

A tobacco free policy at work protects nonsmokers from the harmful effects of tobacco smoke. The tobacco user receives positive peer influence from the colleagues. As a large part of the day is spent at work, such a policy would help in reducing the frequency of tobacco use. This, however, may not lead to tobacco cessation among tobacco users in the absence of any support for quitting, as tobacco is highly addictive.<sup>[2]</sup>

Communication skills are important for the medical students at various duties they perform at present and as a future

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health professional. Various methods can be used to improve the communication skills.

As per study conducted by Nunes P, Students were introduced to various consultation models initially in a more traditional classroom setting. After that learner centred, experiential and interactive learning methods such as brainstorming and group discussions were used to develop frameworks for interviewing patients. Subsequent to teaching on consultation models role play scenarios were enacted using cases taken from the lecturer’s own experience and the students’ encounters in clinics. OSCE sessions using simulated patients and checklists to assess students’ performance were used to reinforce the key components of good consultations in different scenarios.<sup>[3]</sup>

Interactive methods like role play, recorded video scenarios interactive session, anecdotes are used for teaching medical students. The objective structured clinical exam (OSCE) is also being regularly used to teach and assess communication skills of medical students in the western world. I.<sup>[4,5]</sup>

Communication skills can be improved by various methods mentioned. The improvement in the communication skills can be assessed by Objectively Structured Clinical Examination (OSCE)

The present study was designed with the aim to enhance communication skills of MBBS (Bachelor of Medicine and Bachelor of Surgery) students by using interactive teaching methods in counseling of tobacco users and examine it by using OSCE.

**Context of the study**

- Communication skills have a direct impact on doctor - patient relationship.
- If taught in a systematic manner and by using an appropriate curriculum, communication and attitudinal skills can be acquired.
- Using standardized patients (SP) can be an effective way to teach communication skills.
- Not only can communication skills be taught, they can also be measured by using standardized patient based objective structured clinical examination (OSCE).

**MATERIALS AND METHODS**

It was before and after the comparison study conducted at one of the tertiary care teaching medical college located in Pune city of Maharashtra state of India. The students of Third MBBS (VI<sup>th</sup> semester) who had given written

informed consent were included in the study. The students of Third MBBS (VI<sup>th</sup> Semester) who remained absent on the day of enrollment in the study were excluded. They were given detailed information regarding the study and the knowledge on the harmful effects of tobacco use. The study protocol was approved by the Institutional Ethics Committee.

Communication skills of students were examined by standardized patients (investigators) by objective structured clinical examination (OSCE) method before the Intervention. The standardized patients (investigators) were trained to observe the points as per OSCE check list on all 3 stations as follows:

**Station one:** Interpersonal skills

**Station two:** Communicating the health hazards of tobacco

**Station three:** Communicating the tobacco de-addiction programme

After the initial assessment was done by OSCE method, all the students were trained to enhance communication skills by role play, interactive session, anecdotes.

After this intervention to enhance communication skills the students were re-assessed for their communication skills by the same standardized patients (investigators) on all three stations as mentioned above by the OSCE method.

Statistical analysis was done by using Paired *t*-test.

**RESULTS**

Out of 21 students of Third MBBS (VI<sup>th</sup> Semester) 5 were absent on the day of enrollment in the study. Thus 16 students gave informed consent and participated in the study. The students of Third MBBS (VI<sup>th</sup> Semester) who remained absent on the day of enrollment in the study were excluded.

Table 1 shown that the difference in scores at all the 3 stations before and after the intervention and also the global scores before and after the intervention was statistically highly significant (*P* = 0.0001). Thus the communication skills of students in counseling tobacco users improved after they were given role play, interactive session, anecdotes.

**DISCUSSION**

Similar results were observed in study by Ahsen, *et al.*<sup>[4]</sup> wherein statistically significant difference was observed in the communication skills of students when assessed in the post

**Table 1: Pre-Intervention and post-intervention OSCE scores**

Scores on respective stations	Mean (S.D.)		t-value	95% CI	P-value
	Pre-intervention	Post-intervention			
One (1)	14.94 (5.60)	23.5 (2.58)	5.945	5.945 to 11.63	0.0001
Two (2)	3.375 (1.82)	10.25 (1.92)	14.264	5.848 to 7.902	0.0001
Three (3)	11.94 (5.36)	18.12 (5.1)	4.382	3.178 to 9.197	0.0001
Total score of all 3 stations	30.25 (10.5)	51.88 (7.44)	9.146	16.59 to 26.66	0.0001

intervention OSCE ( $P = 0.000$ ). Videos and role play in combination with community and clinical exposure are effective modes of teaching counseling skills to medical students. They can be successfully utilized even in a limited resource setup, as demonstrated by our trial. In the study by Amam Mbakwem, *et al.*<sup>[6]</sup> there was significant improvement in the trained students' post-rotation MCQ scores, ( $P < 0.0001$ ); overall OSCE, ( $P < 0.0001$ ) and the four focus areas/OSCE stations: general communication skills ( $P < 0.0001$ ); counseling on hypertension ( $P < 0.0001$ ); counseling on adherence to medications ( $P < 0.0001$ ), and negotiating a management plan ( $P = 0.01$ ). The post rotation MCQ and overall OSCE scores were significantly higher in the intervention group than the controls,  $P < 0.0001$  and  $< 0.0001$ , respectively.

As per Zick, *et al.* a video-based, open-ended approach to self-assessment is feasible, practical, and informative. While the self-assessments covered a broad scope, students clearly attended to tasks and skills relevant to effective communication and relationship building. Videotaped clinical encounters allow learners to review their own behavior and make specific comments supported by tangible examples. An open-ended approach to self-assessment of communication skills can serve as one important component of a systematic education and evaluation program.<sup>[5]</sup> Tsai, *et al.* conducted a study amongst the first year postgraduate resident and concluded that OSCE is a rational and feasible assessment method for evaluating the effectiveness of our PGY general medicine training program. The quantitative data and qualitative information provide a foundation to improve the quality of the program design and evaluation in implementing postgraduate general medicine training.<sup>[7]</sup>

According to Parish, *et al.* perceived educational value of the OSCE was high, and feedback improved subsequent performance among the residents and OSCE helped teach needed skills for assessing and managing substance abuse disorders.<sup>[8]</sup>

As per Tervo, *et al.* the OSCE process does serve to identify areas of weakness in the curriculum and/or teaching methods, and thus can serve as a mechanism to improve educational effectiveness.<sup>[9]</sup> Study conducted amongst hospital staff nurses for evaluation of tobacco cessation shown that knowledge significantly increased from baseline to post-test. Counseling skills improved. These findings support tobacco cessation programs for bedside nurses as useful in enhancing nurse confidence in patient-counseling skills. Study findings demonstrated benefits to using the developed curriculum.<sup>[10]</sup>

It is well established that by increasing knowledge about smoking-cessation methods, health professionals can support and encourage the large majority of smokers who want to quit.<sup>[11]</sup>

## CONCLUSION AND RECOMMENDATION

Communication skills can be improved by role play, interactive sessions specifically related to the subject. Learning was reinforced when the student observed the role plays and reflected on their performance during OSCE. OSCE served as a means of experienced learning i.e., learning by doing. Similar model can be used to improve the communication/counseling skills in other important health hazards. Similar studies on large scale are recommended.

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