

Student seminar on smoking: A novel way to introduce different perspectives on smoking to medical students

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Background: The respiratory module at Shifa College of Medicine (SCM) is delivered in third year with emphasis on respiratory pathophysiology and respiratory medicine. Smoking as a topic was introduced to emphasize the preventive aspects of respiratory illnesses. An innovative approach to involve students in their learning was developed. To determine whether this innovation would be well received and effective for students' learning about smoking, we carried out this study. **Materials and Methods:** This is a one group post-test quasi-experiment. Two days were assigned for a smoking seminar. The class of 106 students was divided into 10 batches, and each batch was assigned a theme related to smoking. These themes were developed by the faculty, and each theme was related to a different perspective on smoking. A post-test questionnaire was distributed at the end of the seminar for feedback to see what aspects of students' learning were highlighted and what needed to be improved upon. Questions related to the usefulness of the activity were incorporated into the questionnaire and the students were asked to agree or disagree on a five-point Likert scale. **Results:** Most (68.3%) students agreed that this activity improved their knowledge regarding smoking, and 54.8% agreed that it also helped in application of this knowledge. Improvement in presentation and counseling skills (59.8%), evidence-based medicine (47.6%), and softer skills, such as teamwork (72%) and creativity (63.4%), were also reported to be enhanced. **Conclusion:** Seminars led by the students have shown to be effective in breaking the monotony and generating an interest of the topic. Such an activity serves as a small step to make our graduates more empathic, humane, competent, and skilful.

Key words: Medical education, smoking, student seminar

INTRODUCTION

The mission statement of Shifa College of Medicine (SCM) is to produce graduates who are "altruistic, humane, knowledgeable, skillful, and dutiful to their profession and the society at large".^[1] To achieve this aim, the teaching philosophy at SCM, Islamabad, has undergone a major paradigm shift in the last 8 years. From the traditional mode of curriculum delivery, the institution has evolved with development of its indigenous "Integrated Modular System" of curriculum delivery in three spirals. The respiratory module is delivered in two spirals. The first spiral is in first year in which the emphasis is on the anatomy, physiology, and biochemistry of the respiratory system. The second spiral is delivered in third year with emphasis on respiratory pathophysiology and respiratory medicine.

Smoking as a topic was introduced in the second spiral to emphasize the preventive aspects of respiratory medicine. Since smoking is a major public health problem in Pakistan, and an extremely important theme of the curriculum, 2 days were set aside in the module to cover most of its major aspects. Rather

than having a lecture or a small group discussion on this important topic, the faculty decided to develop an innovative approach to involve students in their learning. Self-directed learning and adult-learning principles are values that we encourage our students to inculcate.

To make this an interesting and fruitful session for the students, a "smoking seminar" was planned. The objectives of this seminar were for the student to:

- Identify different vehicles for smoking and its various effects on health
- Describe the pathophysiology of the effects of smoking on the lungs
- Design public health interventions that can be undertaken for prevention of smoking and its related diseases.
- Appreciate the effects of smoking on the patient and his family in its bio-psychosocial context.

The above-mentioned objectives were aimed to inculcate the knowledge, skills, and attitudes of different aspects of smoking including application of evidence-based medicine, presentation and

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consultation skills, creativity, problem solving, team building, and patient centeredness.

To ascertain whether this seminar would be successful in achieving all of our objectives, a small study was designed to assess the usefulness of this activity for the students. Approval from the Institutional Review Board (IRB) of SCM and Shifa International Hospital was obtained.

MATERIALS AND METHODS

During planning of the respiratory module that was of 6-week duration, 2 days were assigned for the seminar. The class of 106 students was divided into 10 batches, and each batch was assigned a theme related to smoking. These themes were developed by the faculty, and each theme was related to a different perspective on smoking. A list of these themes is attached as Appendix A.

During the seminar, each group made their presentations and they were evaluated by a panel of faculty members. Evaluation of each group was based on creativity of the group, preparation, timing, presentation, and communication of underlying message, and ability to tackle the question-answer session in the end. The faculty evaluation questionnaire is attached as Appendix B.

At the end of the 2 days of the seminar, a questionnaire was distributed among the students about the usefulness of this educational activity. This questionnaire was piloted with the students of a junior class before implementation. It contained both closed- and open-ended questions. Close-ended questions related to the usefulness of the activity and pertinent aspects related to smoking had a five-point Likert scale, but for the sake of simplicity they were then merged into three categories. This students' feedback questionnaire is attached as appendix C.

The quantitative data were entered and analyzed through SPSS for Windows version 16. The qualitative data were assessed through thematic analysis.

RESULTS

After the seminar, the class was given a feedback form (questionnaire) to be filled. Out of 106 students, 82 (77.4%) completed and returned the form.

The mean age of our sample was 20.7 (± 2.5) years, and it consisted of 46 (56%) males and 36 (44%) female students.

The results of students' responses to the students' feedback form are represented in Table 1. Most students agreed that this seminar was informative and useful and encouraged

creativity and teamwork. In addition, most of them agreed that skills related to presentation, counseling, and evidence-based medicine were also enhanced.

Most (68.3%) students agreed that this activity improved their knowledge regarding smoking, and 54.8% agreed that it also helped in application of this knowledge. Improvement in presentation and counseling skills (59.8%), evidence-based medicine (47.6%) and softer skills, such as teamwork (72%) and creativity (63.4%), were also reported to be enhanced. Development of a patient centered approach with the students tending to become more patient centered and development of an understanding of patients' perspectives were reported by 53.7% and 64.6% of students, respectively. Overall, most (59.8%) students found this activity useful for their learning, 68.3% reported that it helped in breaking the monotony of teaching activities and 58.5% of them reported that they would like a continuation of such activities in the future. Enhancement of problem-solving skills was reported by 28.1% of students only.

An exam was held after the module ended. Two multiple choice questions related to smoking were introduced in the theory paper. Out of a class of 106, 69 students (65%) were able to score the correct answers of both questions. In the Integrated Practical Exam, one station was developed to test students' skill on counseling a patient to quit smoking and 98 students (92%) passed, i.e., scored more than 50% on this station.

Students were also asked to answer open-ended questions regarding the smoking seminar activity. One question was

Table 1: Students' responses regarding feedback of seminar

Attributes of seminar	Agree	Not sure	Disagree
	(no.) (%)	(no.) (%)	(no.) (%)
Increased my knowledge regarding smoking	56 (68.3)	9 (11.0)	17 (20.7)
Improved application of knowledge	45 (54.8)	18 (22)	19 (23.1)
Enhanced problem solving	23 (28.1)	33 (40.2)	26 (31.7)
Enhanced evidence-based medicine (EBM) skills	39 (47.6)	24 (29.3)	19 (23.1)
Enhanced presentation skills	49 (59.8)	18 (22)	15 (18.2)
Enhanced consultation and counseling skills	49 (59.8)	19 (23.1)	14 (17.1)
Encouraged team work	59 (72)	7 (8.5)	16 (19.5)
Enhanced creativity	52 (63.4)	17 (20.7)	13 (15.9)
Encouraged me to become a more patient-centered doctor	44 (53.7)	20 (24.3)	18 (22)
Helped in understanding patients' perspectives on smoking	53 (64.6)	15 (18.2)	14 (17.1)
Generated my interest in the topic	42 (51.2)	16 (19.5)	24 (29.3)
Helped in breaking monotony of teaching activities	56 (68.3)	13 (15.9)	13 (15.9)
Was overall useful for my learning	49 (59.8)	20 (24.3)	13 (15.9)
Continuation of such activities in the future	48 (58.5)	13 (15.9)	21 (25.6)

“What did you like BEST about this seminar?” Fifty-seven students responded to this question. The positive themes that were highlighted included an increased level of interest in their studies and the break from the monotony of lectures and small group discussions. It was also highlighted that this activity was unique by being simultaneously creative, relaxing, and informative for the students.

Some written comments on Increased level of interest: *[Students were able to express their views on the topic], [Students were interested in the topic], [I like some of the facts that were presented on the slides, they can help me in my arguments against smoking in future], [It was very knowledgeable and the good thing was that we got to know the emotion, thinking about smoker from both smoker and non-smoker point of view].*

Some written comments on the Break from monotony include: *[A good break from the lecture system which still allowed me to learn], [A break from Small Group Discussion (SGD) life], [It gives you a break from daily MBBS books].* Written comments on Uniqueness of this experience: *[A great variety. Personal experiences were showed which I would not have known otherwise], [The role plays. They were interesting and creative. A difference from the rest of the course], [Effort made by students – they really got the message through], [Felt a little relaxed], [It was relaxing and informative at the same time], [Teachers were for once off the stage], [Plenty of information from diverse sources – EBM – creativity], [We were free to decide our own groups and express ourselves freely on stage], [It enhances our creativity, makes us think and broadens our mind related to different issues].*

Students were asked to express their views on what they liked LEAST about the seminar. Fourteen students responded to this question. The consistent theme highlighted in this was the critique offered by the faculty at the end of each group presentation. Students' comments show that the students felt that the faculty was overcritical of their efforts: *[Teachers should not openly criticize students specially those that did a fairly good job in presenting. Because some of the students are already low on confidence and such public taunting will not help.], [Facilitators were too critical.], [The fact that the teacher really made it more like a competition rather than a seminar. In a group of 100 people, this really doesn't seem appropriate], [It was very long and the teachers were too cynical of the presentation and targeted individuals with low public speaking skills rather than appreciating their efforts.], [Students were taking things very personal], [No appreciation, everybody criticize].*

After receiving and analyzing the negative comments of the students, the faculty reflected on how they could have given feedback so as to make it more palatable for students. The faculty reflected on their own expectations from the students

and the tone and choice of words for giving feedback. It was concluded that the faculty perceived this activity as a serious academic exercise; whereas for students, it was more of a recreational activity. This difference of perceptions may have caused a conflict and resulted in some of the negative comments that were quoted.

DISCUSSION

Medical education strives to be contextual and relevant to the needs of the society that its graduates would serve. Maintaining medical students' interests and motivation to learn is a challenge that faculty members face throughout the curriculum. Teaching methods considered novel by faculty members and in which students have not had prior experience can tend to backfire if students' preferential methods of learning are not taken into account.^[2] Developing innovative approaches to learning is now encouraged in all phases of education be it in schools, colleges, or professional institutions.^[3] Effective curricular design and implementation can be supported through determining the preferred learning styles of students who are the recipients.^[4,5] Peer teaching by students in the form of tutorials and seminars has shown to have positive effects on the academic achievements of undergraduate medical students.^[6-8] With students as trainers and presenters the learning environment tends to be more relaxed and the teaching content is well received by the audience. The students also improve on their communication and presentation skills.^[9] Our results have shown that this activity also gave students the opportunity to understand patients' perspectives of developing an unhealthy habit and suffering from illness. Seminars have been effective in getting this point across.^[10]

Seminars led by students have shown to be effective in breaking the monotony and generating an interest of the topic.^[11] This type of informal learning has been helpful for undergraduate medical students, especially of the higher academic years.^[12] Both the quantitative and qualitative feedback from the students in our study confirms this. Studies have also shown the medical students' involvement in teaching activities related to smoking do help to bring about some changes in awareness and inquiry about smoking in their patients.^[13] This aspect can be looked into further, but it is beyond the scope of our paper. This seminar was well received by the students, and it did help to generate an interest and awareness of the topic. We encourage other institutions to follow suit.

We hope that this activity serves as a small step to make our graduates more empathic, humane, competent, and skilful.

APPENDIX A

Themes

- Through literature search, try to find out how different vehicles for smoking (e.g., cigarettes, cigars, pipes, and hookah shisha) are comparable to their affects on health.
- Through a role play, demonstrate how a doctor should counsel a young 27-year-old man to quit smoking. (The play should not be greater than 10 min). Your group may be asked questions at the end of the session.
- Through a role play, demonstrate how a doctor should counsel a 76-year-old man to quit smoking. The gentleman in question has smoked for most of his life and now reluctant to quit at this stage. (The play should not be greater than 10 min.) Your group may be asked questions at the end of the session.
- A smoker's lament: Make a presentation by a smoker who justifies his reason for smoking (not greater than 10 min) (two groups).
- You have recently opened up a cafe targeting teenagers and young adults. You specialize in coffees and desserts. You have not implemented any policy about smoking, and it is carried out without retribution on your café. The other day, a man walks in with his 12-year-old son. He introduces himself as a doctor and as the owner asks to meet with you. He wants you to stop a certain group of teenagers from smoking, because he says the second hand smoke is affecting him and his son. What action would you take and why? Justify your decision through an evidence-based research and present your findings to the class. (two groups)
- You are the President of the Shifa College of Medicine Student Council. The Dean asks you to develop an anti-smoking campaign for the student body to be implemented next year once the new batch of first year enters the college. What measures would you take to ensure that your campaign is successful? (two groups)
- You are a 56-year-old man recently undergone treatment for lung cancer. You have been a smoker for the last 40 plus years. You are now addressing a group of young men and women about your experience with smoking and its effects on your life now (your talk should not be greater than 10 min).

APPENDIX B

Faculty evaluation of student seminar on smoking

Rate the student groups on a scale of 1-5 (1 being poor and 5 being best)

Group A					(A smoker's lament)
How creative the group has been?	1	2	3	4	5
How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group B					(A smoker's lament)
How creative the group has been?	1	2	3	4	5
How creative the group has been?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group C					(A literature review on different smoking vehicles)
How creative the group has been?	1	2	3	4	5
How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group D					(A café owner on passive smoking)
How creative the group has been?	1	2	3	4	5

How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group F	(A role play on counseling a young man to quit smoking)				
How creative the group has been?	1	2	3	4	5
How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group G	(A role play on counseling an old man to quit smoking)				
How creative the group has been?	1	2	3	4	5
How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group H	(An anti-smoking campaign for students)				
How creative the group has been?	1	2	3	4	5
How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group I	(An anti-smoking campaign for students)				
How creative the group has been?	1	2	3	4	5
How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5
Group J	(An experience of a patient with lung cancer)				
How creative the group has been?	1	2	3	4	5
How well prepared they have come?	1	2	3	4	5
How well they have presented and communicated their underlying message?	1	2	3	4	5
How well they tackle the Q & A session?	1	2	3	4	5

APPENDIX C

Feedback on student seminar regarding smoking

Please fill out the feedback form below. This information will help us in evaluating the utility of such an activity in the future.

1. Gender M F
2. Age _____ years
3. This activity helped to increase my knowledge regarding smoking
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
4. This activity helped me in applying in future what I have learnt today
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree

5. My problem-solving skills were enhanced through this seminar
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
6. This activity enhanced my skills to gather and process evidence based literature
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
7. This activity enhanced my presentation skills
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
8. This seminar enhanced my consultation and counseling skills
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
9. This activity helped me to function as an efficient team member while working in the team
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
10. This activity enhanced my creative skills
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
11. This seminar helped in making me become a more patient-centered doctor
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
12. This seminar helped in making me realize the patient's perspective regarding smoking and its effects on health
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
13. This seminar generated my interest in the topic
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
14. This activity helped in breaking the monotony of teaching activities
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
15. Overall, I found this activity useful for my learning
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
16. Seminars such as this should be continued in the future
 - a. Strongly agree
 - b. Agree
 - c. Not sure
 - d. Disagree
 - e. Strongly disagree
17. What did you like BEST about this seminar?

18. What did you like LEAST about this seminar?

19. Any other comments?

THANK YOU

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