

## Research Article

# Evaluation of the effectiveness of seminar as an educational tool among the medical post graduate students

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## ABSTRACT

**Background:** The departments of medical colleges have a greater responsibility in making the study methods of their subject innovative, interesting and participatory for the post graduate students. One such method adopted is organizing seminars for the post graduate students. The post graduate education depends on self-learning. Knowledge acquisition through seminars forms an essential part of their training programme.

**Methods:** This study assesses the role of seminar as teaching-learning tool by recording the perception of post graduates on seminars through a questionnaire based survey.

**Results:** The scores for most of the items of a twenty point questionnaire were above three indicating the learning from seminar is satisfactory. Seminar methods of teaching-learning, in contrast to the traditional didactic class room lecture method, is more effective way of learning, which is relevant to self-development and is also interactive. This method provokes discussions and debates which help post graduate students to voice their opinion and clear their doubts.

**Conclusions:** Many of the post graduate students feel that this technique of seminar programme is useful amidst some suggestions to improve quality. Thus the post graduate seminar method is a teaching-learning method that covers the three major domains of teaching i.e., cognitive, affective and psychomotor skills and is thus effective and well - accepted among the post graduate students.

**Keywords:** Seminar, Post graduate students, Questionnaire

## INTRODUCTION

In medical colleges, the post graduate students usually depend on self-learning for the skills development and academic activities. There are many ways in which the subject can be learnt by a post graduate student. Among them seminar offers an independent method of learning, that is student centered in which the student is given a topic by the post graduate guide and the post graduate student has to present the topic in front of his seniors,

faculty members and guide, often using the audio visual aids.<sup>1</sup> After preparation for the allotted topic, post graduate students deliver their presentation, followed by an interactive question – answer session; discussions may be held both during and at the end of the presentation.<sup>2</sup>

Originally the word “seminaries” of older times implies veritable seed-plants. Meaning, the institutions in which the youth would be religious writer or teacher, taught to unfold the seed of doctrinal disputation or theological acumen. It supposes that on one hand a comprehensive

knowledge of particular topic is imparted and on the other hand, to teach the methodologies or skills of special work related to the seminar topic. As the time progressed, this latter part of their duty is gradually relegated to an inferior place.<sup>3,4</sup> But with the revival of interest in science, in recent times, there came a change in the meaning of seminar. Thus by definition, a seminar is a lecture or presentation delivered to an audience on a particular topic or set of topics that are educational in nature. It is held for a small group and for the role played by speaker.

Conducting seminars should be a part of post graduate teaching programs, according to Medical council of India. In contrast to traditional didactic lecture method, seminar method seems to be more effective way of learning, which is relevant to self-development and is also interactive.<sup>5</sup> Keeping these historical and present day facts in mind, the present study is designed to evaluate the effectiveness of seminar method by assessing the perception of the post graduate students. For this, a questionnaire was given to post graduate students to grade this activity as a teaching-learning tool in their studies.

The aim of the study was to evaluate the attitude and perception of post graduate students towards seminar method of teaching and thereby the effectiveness of this tool as a technique for teaching-learning. The objectives had been to identify the extent of coverage of all three

domains of teaching i.e., cognitive, affective and psychomotor skills in this teaching-learning tool i.e., seminar.

## METHODS

The study involved the post graduate students of preclinical departments (anatomy, physiology and biochemistry), paraclinical departments (pharmacology, forensic medicine, pathology and microbiology) and clinical departments (General medicine, surgery, obstetrics and gynaecology, paediatrics and others). The inclusion criteria to participate in the study were the post graduate students who had delivered or attended at least one seminar. Development of 20 point questionnaire was done to validate the effectiveness of seminar as a post graduates' teaching method. Each item in the questionnaire was scored on a 5-point scale with scores of 5,4,3,2 and 1 assigned for strongly agree, agree, uncertain, disagree and strongly disagree respectively. At the end of the questionnaire, space was provided for the respondents to indicate the advantages and disadvantages of the teaching technique, from their view point and also to suggest any steps to improve this technique ( or by oral conversation). The data as feedback was collected from fifty eight post graduate students. Mean scores and their standard deviation based on responses for each attribute of these components were calculated.

## RESULTS

**Table 1: Mean scores of perception of seminar of post graduate students.**

S.no	Item (Post graduate student= P.G. student)	Score (Mean±SD) (N=58)
1	The preparatory time period given for seminar topic is adequate.	3.66 (0.58)
2	The facilities like library and audiovisual aids are adequate.	2.28 (0.66)
3	Time allotted for presentation of topic is usually one to one and half hour.	3.46 (0.71)
4	Seminar improves the communication skills of P.G. students.	3.28 (0.74)
5	Seminar improves the development of skills to use audio visual aids effectively.	4.19 (0.63)
6	Seminar improves P.G. students ability to search the literature.	3.85 (0.94)
7	Seminar increases the confidence of the P.G. student for speaking in public.	3.96 (0.76)
8	Seminar improves the comparative outlook with different disciplines of science.	2.38 (0.47)
9	A good understanding of subject is achieved by seminar.	3.81 (0.83)
10	Applied aspects of the subject will be learnt better by the seminar method.	3.94 (0.56)
11	A common seminar programme with integration of different departments could be conducted once in a month.	4.0 (1.12)
12	Seminar is an occasion to get cleared of the doubts in the subject topic.	3.65 (0.90)
13	Routine studies get affected by seminar as it requires a lot of time for preparation.	4.15 (0.98)
14	Seminar brings clarity on the concepts of the subjects topic.	3.84 (0.80)
15	Seminar encourages intellectual curiosity of the P.G. student.	3.77 (0.77)
16	Seminar encourages self-reading in the P.G. student.	3.89 (0.70)
17	The P.G. student reproduces better, this topic in examinations, especially in pedagogy session.	4.0 (0.64)
18	Challenging topics were chosen as seminar topics for better understanding	4.18 (0.90)
19	The knowledge acquired by the seminar methods will help the P.G. student in future.	3.94 (0.66)
20	Seminar pattern of teaching-learning method should be continued in future.	3.82 (0.62)

A total of fifty eight post graduate students had participated in the present study. If there is a missing data, it was replaced by a score of 3 as a neutral response, from the study population. Table 1 represents the mean score $\pm$ SD of perception level of assessment of participated post graduate students for each item. As most of the scored are above 3, it indicates that learning by seminar method is a satisfactory method. There were two items (No. 2 and No. 8) where the scores are below 3. These are the aspects of seminar that could be enhanced or requires investigation or possible intervention. One item (No. 5) had shown a good score as  $4.19\pm 0.63$  indicating that skills regarding the usage of audio visual aids will be improved by the seminar method.

## DISCUSSION

In this study, the participants felt that the knowledge acquired via seminar will help them in their future and the pattern could be continued in post graduate studies. As most of the items scored above 3, it indicates that the most of the items had been agreeable to the participants. Almost all the aspects of learning through various domains i.e., cognitive, affective and psychomotor – had been included in the questionnaire and the response of the participants correlated closely towards these domains. From the respondents' view point, in addition to imparting the post graduate students, subject knowledge in an impressive manner with recalls (i.e. cognitive domain), this teaching technique also resulted in the improvement of soft skills such as communication with their colleagues or teachers in discussions, critical reasoning (i.e. affective domain), and confidence as a speaker with a better and effective expressions and acts (i.e. psychomotor skills). The participants also opined that they could score better in examinations, in theory part as well as in viva-voce part (as the phobia of viva-voce examination will be allayed). Thus seminar class operates simultaneously on intellectual, affective and social levels.

A short coming or disadvantage of this seminar method as pointed by many participants is that their routine or planned study programmes get affected as a lot of time is required in preparing for seminar. For this, a well-furnished library and technical facilities such as flip charts, computers, internet and data projector are to be adequate, which is also another requirement.<sup>6</sup> Seminar method consumes more time in finding out the suitable material for a quality presentation. It would be better if encouraging comments are made by the faculty members during or at the end of seminar session. Structured small group work such as seminar generates energy and involvement in academic discussions.

Many of the participants viewed that this seminar presentation would be useful in the pedagogy session of their examinations. By this method, post graduate students learn a great deal by explaining their ideas to others and by participating in activities from which they

can learn from faculty members and chairperson/guide of the seminar. A few students suggested that if they attend a seminar, taken by a senior faculty member with good presentation, it could be helpful to the student in the presentation of the seminar topic in future. One more suggestion is that materials needed for the PowerPoint presentation should be available. A list of questions can be circulated at the end of the seminar so that the members attended can get an idea of their understanding and the speaker too gets an idea about effectiveness of this presentation.<sup>7</sup> It would be better if the student presenting the seminar should summarize the discussion of the topic and record it and circulate like minutes of meeting. Passive observation without interaction by attending members makes a seminar dull.

The seminar to be fully useful and beneficial to all the participants, it is the responsibility of all the members attending the seminar, to contribute their ideas, opinions and questions. Also it is essential that the topic be well researched and be prepared in advance, both by the presenter and the audience i.e., the historical aspects, evolutionary development (as introduction), comparative outlook with other disciplines, qualitative and quantitative aspects, explaining the mechanisms, variation to general rules, applied aspects and recent advances in it.<sup>8</sup> By the end of the presentation of seminar, the post graduate student should develop communication skills to interact with colleagues, staff members and the guide of the seminar programme.

The post graduate seminars are to be held once a week and the topics selected are of common interest, especially in integrated meets as opined by many participants. A time table of these seminar programmes should be drawn for every six months. It would be good if the participants appreciate starting out their seminar meet with quiet laughter with icebreakers and chance to share something about themselves in a comfortable and supportive environment.<sup>9</sup> The rooms, where seminar is to be conducted should have enough space and a panoramic view of seating, so that all the members attending could view one another especially in discussions. Thus a seminar seems to be an activity idea that depends on contributions from all the participants.

One limitation observed in this study is that seminar programmes involve more time at the expense of routine running of departments. Therefore, it would be better, if they are conducted on free or somewhat leisurely days in the week. Another limitation is that no questions being asked regarding the stress that seminar programme has on the participants.

## CONCLUSION

The post graduate seminars were felt to be a good method of teaching-learning tool, having improved the depth of learning, teacher-student and student-student interaction and communication skills among them. The post graduate

students opined that the teaching-learning tool or technique i.e., seminar is effective and useful and it should be continued in future.

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