

Basic Workshop for Medical Teachers : Effectiveness and Impact

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Abstracts: Background & objectives: MCI recognized three days basic course in MET for medical teachers is a course for faculty development in higher education. In the present study the impact of programme on the teaching performance of faculty members after two years of the completion of the course was evaluated. **Method :** A Structured questionnaire was given to 41 teachers from the first two batches of three day basic course in MET at NKP SIMS, Nagpur, to seek individual opinion on the impact of the program and possible modifications produced in their teaching activities. The opinions of the faculty about their post course teaching activities were analyzed. **Result:** 1. 57 % Professors were benefitted substantially from interactive teaching techniques and structured clinical assessment, 57% markedly from adult learning, learning objectives, positive learning atmosphere, using audiovisual tools, preparing essay questions and preparing MCQ's. 2. Associate Professors found audio visual tools, structured clinical exam, MCQ's and adult learning useful 3. Lecturers were able to use MCQ's, positive learning atmosphere, structured clinical assessment. 4. Newer assessment methods were introduced to undergraduate students more by faculty from clinical department (90%) 5. Research projects related to medical education were undertaken more by faculties from clinical departments. 6. Members from non clinical dept introduced new teaching methods and have undergone advanced training in Medical education more than clinical dept. 7. 84.21% Associate Professors introduced newer teaching learning methods 8. Research projects are undertaken more by lecturers. **Conclusion:** 1. Three day basic course helps teachers increase their knowledge regarding medical education and implement newer teaching learning and assessment methods to students. 2. Teachers are now sensitized to changes in medical education ,research and are ready to undergo advanced training and attend conferences. [Nagdeo N V et al NJIRM 2014; 5(2) :1-5]

Key Words: MET, Teaching Learning methods.

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Introduction Medical education in India usually consists of a series of lectures, practicals, and bedside classes. Lectures are the passive forms of teaching where only the knowledge is delivered to the students with little importance to the practical skills. Even the assessments are done keeping this form of teaching in mind. To make changes in teaching methods, medical teachers should be made aware about different teaching learning methods .The students should be divided into smaller groups and teaching should be interactive. The teacher should become a facilitator to develop active learning by students¹.

Primary aim to bring the change in medical education would be to train the teacher. Maharashtra University of Health Sciences and Medical Council of India are regularly conducting 3 days basic workshops for medical teachers in which various sessions are conducted to make teachers aware regarding various Teaching learning methods, TL Media, microteaching and assessment methods¹.

Several medical schools have accepted a certificate course as a criteria for academic promotions²

Faculty development is a programme to improve individual's knowledge and skills in teaching, educational research and educational administration. In medical education faculty development deals with the sensitization and training of teachers in carrying out their professional tasks, which lead to improvement in the quality of teaching³.

Improvement in medical education is largely dependent upon the knowledge of medical teachers about teaching methods, their teaching attitudes and the students orientation. The workshops are planned to present new methods and information to encourage in the participants more favourable attitude towards medical education⁴.

Short term educational workshops have been reported as an effective method for influencing medical teachers⁵. It is necessary for the present day teacher to be aware of changes that are taking place in medical education. The changes are shift from conventional role of teacher, changes in learning styles, innovative curriculum models and changes in assessment philosophy, methods and tools³.

The medical education unit attempts to improve teaching learning skills by training faculty members through organising regular medical education training workshops or programmes. Various components such as teaching learning principles, writing educational objectives, T-L Methods and media, microteaching and various assessment methods are included in the workshop.

Basic workshops are designed to enable faculty members to improve their skills in teaching and assessment methods. These workshops are conducted since December 2009 in our institute and is focussed on major themes such as Newer teaching methods, media and assessment methods, making teaching student centered. It is a 3 days course conducted in an interactive way consisting of role plays, group discussion, small group presentations and brief lectures.

The impact of the training on actual teaching is not always quantitatively assessed, and the duration for which this effect is sustained was seldom measured⁶. Musal b et al and Ozyurda F have evaluated the opinions of participants about the efficiency of the training programme^{7,8}.

The present study was carried out as a part of the programme evaluation activity. The impact of programme on the teaching performance of faculty members at NKPSIMS was evaluated on the basis of their use of new concepts, skills and knowledge in teaching activities.

At the beginning of the workshop pre test questionnaire was given to each participant to know about the knowledge regarding medical education. At the end of 3rd day a post test

questionnaire was given to know the knowledge gained by each participant. Then a study was conducted on these participants 2 years after the workshop to know the impact of the programme.

Aims And Objectives : To assess the effectiveness of 3 days Basic Workshop on medical teachers.

Methodology: Medical Education Technology (MET) Unit of NKPSIMS has conducted 7 Basic workshops on Medical Education Technology for medical teachers since the year 2009. About 25 participants were trained in each workshop. Pre test and post test questionnaire were given in the workshop to know about the knowledge of newer teaching learning and assessment methods. Permission was taken from Institutional ethics committee to carry out this project.

In this study participants from first two Basic courses were included. Total 41 teachers attended these two workshops. A Structured questionnaire was given to each participant. Individual opinion was asked about the impact of the program on the modifications produced in their teaching activities and behaviour. Questionnaire was given 2 years after the completion of the workshop. The questionnaire was organised in such a way that it asked the participants to rate their opinion of the professional benefits gained in their performance of specified teaching and learning related activities, and regarding student evaluation practices. The effectiveness of the workshop was judged by the changes incorporated by the teachers in their teaching methods or in the student evaluation. The opinions of the faculty members about their post course teaching activities were analysed.

Result: Forty one faculty members from NKPSIMS participated in this basic teaching technology workshop. It included 20 members from clinical and 21 members from non clinical departments. An analysis of teachers according to their academic position/designation showed that 15 were lecturers, 19 were associate professors and 7 were professors. In general 40-50% faculty could remember most of the topics to large extent.

Table I Faculty remembering the following sessions after two years.(n=41)

Topic	To some extent %	To large extent %	Completely %	Don't remember %	Participants
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a.Principles of adult learning	36.58 25 47.61	56.09 70 42.85	2.43 5 00	4.87 0 9.52	Total Clinical Preclinical
b. Identifying learning objectives	29.26 20 38.09	48.78 60 38.09	14.63 15 14.28	7.31 5 9.52	Total Clinical Preclinical
c. Using audiovisual tools effectively	14.63 10 19.04	48.78 55 42.85	36.58 35 38.09		Total Clinical Preclinical
f. Modifying large group teaching	31.70 25 38.09	39.02 35 42.85	24.39 40 9.52	4.87 00 9.52	Total Clinical Preclinical
g. Modifying small group presentations	29.26 20 38.09	48.78 55 42.85	48.78 55 42.85	4.87 00 9.52	Total Clinical Preclinical
h. Preparing essay questions	29.26 25 33.33	26.82 20 33.33	29.26 45 14.28	14.63 10 19.04	Total Clinical Preclinical
i. Preparing multiple choice questions	12.19 00 23.80	48.78 65 33.33	36.58 35 38.09	2.43 00 4.76	Total Clinical Preclinical
j. Analysing multiple choice questions.	31.70 25 38.09	39.02 45 33.33	26.82 30 23.80	2.43 00 4.76	Total Clinical Preclinical
k. Structured practical/clinical assessment	31.70 20 42.85	39.02 50 28.57	24.39 30 19.04	4.87 00 9.52	Total Clinical Preclinical

Table II Faculty opinion regarding professional benefits of the topic (n=41)

Topic	Completely %	Markedly %	Partly %	Not at all %	Participants
a.Principles of adult learning	17.07 20 14.28	51.21 60 42.85	6.82 20 33.33	4.87 00 9.53	Total Clinical Preclinical
b. Identifying learning objectives	29.26 30 28.57	46.34 50 42.85	21.95 20 23.80	2.43 00 4.76	Total Clinical Preclinical
c. Using interactive teaching techniques	41.46 35 47.61	46.34 60 33.33	12.19 5 19.04	00 00 00	Total Clinical Preclinical
d. Creating a positive learning atmosphere	41.46 40 42.85	46.34 50 42.85	12.19 10 14.28	00 00 00	Total Clinical Preclinical
e. using audiovisual tools effectively	51.21 40 61.90	41.46 44 28.57	7.31 5 9.52	00 00 00	Total Clinical Preclinical
f. modifying large group teaching	26.82 30 23.80	31.70 35 28.57	31.70 35 28.57	7.31 5 9.52	Total Clinical Preclinical

g. modifying small group presentations	36.58 45 28.57	39.02 25 52.38	19.51 30 9.52	4.87 00 9.52	Total Clinical Preclinical
h. preparing essay questions	24.39 25 23.80	41.46 50 33.33	26.82 25 28.57	7.31 00 14.28	Total Clinical Preclinical
i. preparing multiple choice questions	39.02 35 42.85	46.34 50 42.85	12.19 15 9.52	2.43 00 4.76	Total Clinical Preclinical
j. analysing multiple choice questions.	29.26 30 28.57	43.90 55 33.33	21.95 15 28.57	4.87 00 9.52	Total Clinical Preclinical
k. Structured practical/clinical assessment	26.82 20 33.33	53.65 70 38.09	12.19 10 14.28	7.31 00 14.28	Total Clinical Preclinical

The opinion of the participants regarding the professional benefits of the topics are shown in table II. 46.34% of participants were benefitted from topics like Identifying learning objectives, using interactive teaching techniques, creating positive learning atmosphere, and preparing multiple choice questions.

About 51.21% faculty was benefitted markedly from principles of adult learning, while 51.21% were benefitted completely from the use of

audiovisual tools effectively. Table II also shows that 60% faculty from clinical department were markedly benefitted from Principles of adult learning, 35% from Large group teaching and 25% from small group presentations. While pre clinical departments were benefitted markedly from interactive teaching activities(33.33%), use of audiovisual tools (28,57%), preparing MCQs (33.33%) and structured practical assessment (38.09%).

Chart I: Professional benefits(%) to Professors (n=7)

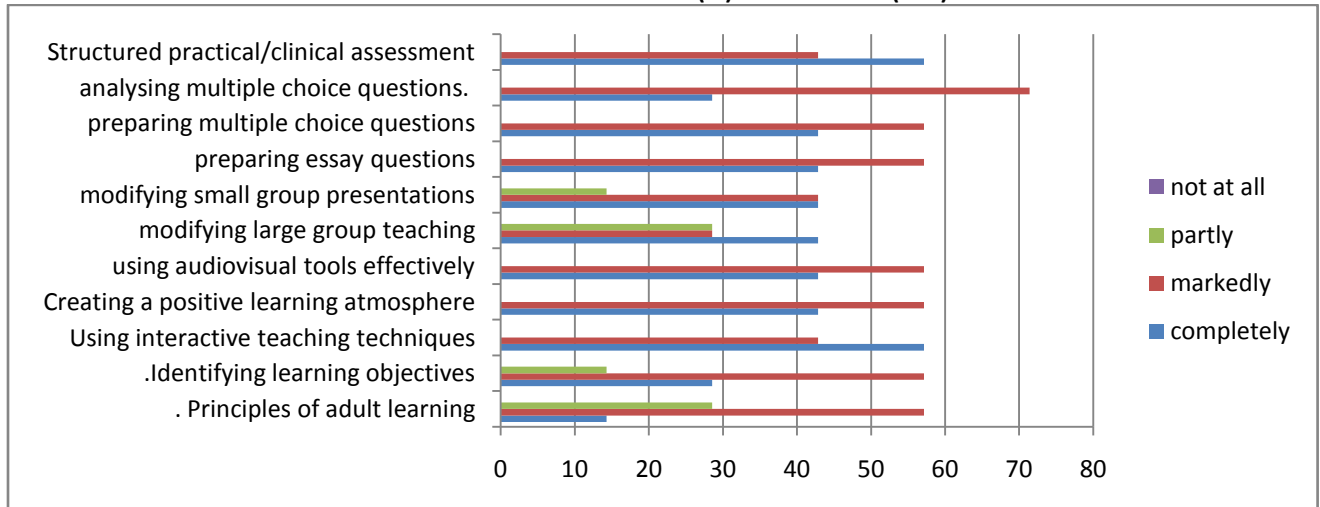


Chart II: Professional benefits to Associate Professor (%) (n=19)

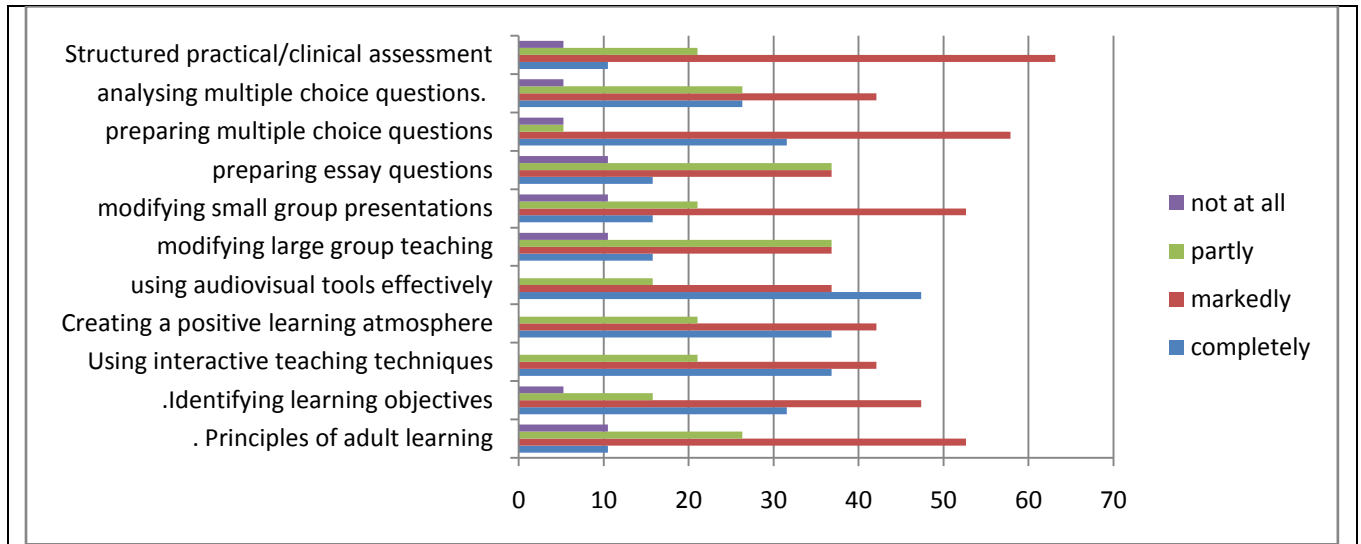


Chart III: Professional benefits (%) to Lecturer (n=15)

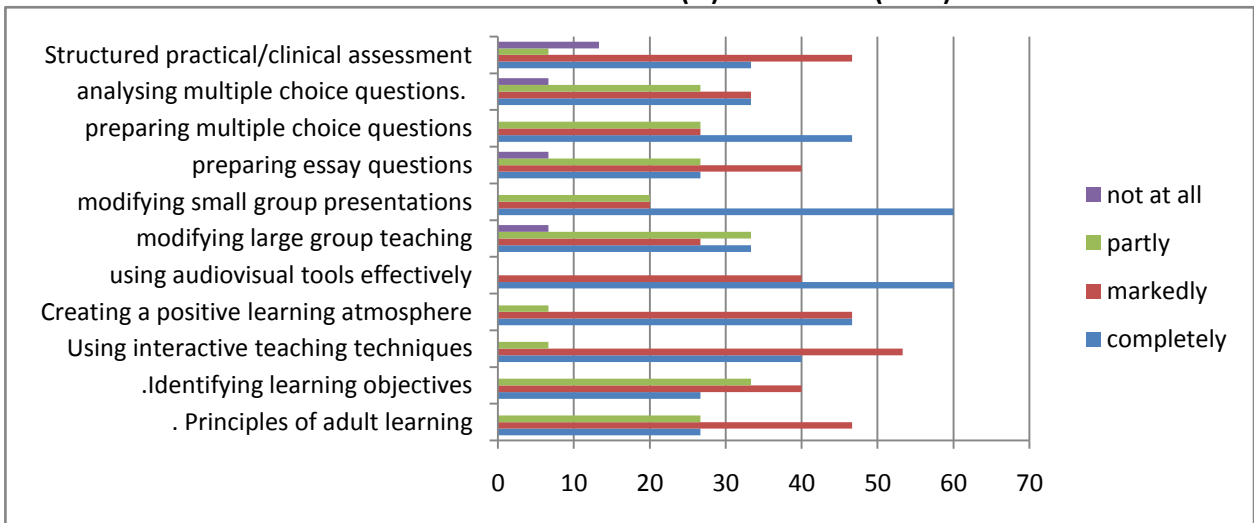


Chart I shows that 57% of the professors were completely benefitted by Interactive teaching techniques and structured assessment methods. More than 50% of Professors were markedly benefitted by most of the topics and about 71.42% of professors were benefitted markedly by analysis of MCQ.

Regarding associate professors 47% were completely benefitted by audiovisual tools and around 50-60% were markedly benefitted by Principles of adult learning, small group presentation, MCQ and structured assessment as shown in Chart II.

From Chart III it is evident that 46% of the lecturers derived complete benefit from Positive learning

atmosphere and MCQ and 40-50% gained marked benefit from Interactive teaching, Positive learning atmosphere and structured assessment. About 5.26% of Associate professors and 13.33% of lecturers were not benefitted at all by Structured clinical/practical assessment.

Table III: Impact of the workshop on Teachers (n=41)

Participants	New Teaching Methods	Introduction to new assessment methods
Total	78.04%	63.41%
Clinical	70 %	90%
Non Clinical	85.71%	38.09%

Changes in teaching methods were done more by the staff from non clinical department (85.71%) while only 70% staff from clinical department

made changes in teaching methods. The participants made changes in their assessment practices after gaining knowledge from the basic workshop. 90% faculty from clinical department introduced new assessment methods as compared to non clinical department(38.09%). The clinicians modified their assessment methods by applying structured clinical exams. (Table III).

Table IV. Impact of the workshop on Teachers (n=41)

Participants	New Teaching Methods	Introduction to assessment
Professor(n=7)	71.42%	71.42%
Associate Professor(n=19)	84.21 %	31.57 %
Lecturer(n= 15)	60 %	20 %

Newer teaching technique like integrated teaching, seminars, small group presentations were introduced by participants. 84.21% associate professors had introduced the newer techniques in their teaching to make teaching learning effective as well as interesting. Significant number of Professors and lecturers also made changes in their teaching techniques after attending the workshop.(Table IV)

More number of professors (71.42%) introduced newer assessment methods as compared to Associate Professors and Lecturer.

Table V. Impact of the workshop(%) on participants for involvement in MET activities. (n=41)

Designation	Adv Training	Conference	Paper Presented	Research Project	Publication
Professor	00%	42.85%	28.57%	00%	00%
Associate Professor	10.52%	63.15%	10.52%	5.26%	5.26%
Lecturer	13.33%	60%	20%	20%	6.66%

Table V shows that more number of lecturers have undergone advanced training in MET as compared to Professors and Associate Professors. More than 50% participants have now attended the conferences related to MET. Research projects related to Medical Education are undertaken more by lecturers than associate professor and Professors. But research papers are presented in conferences more by Professors. As seen in table V, very few staff members have published their articles.

Chart IV. Impact of the workshop(%) on participants for involvement in MET activities. (n=41)

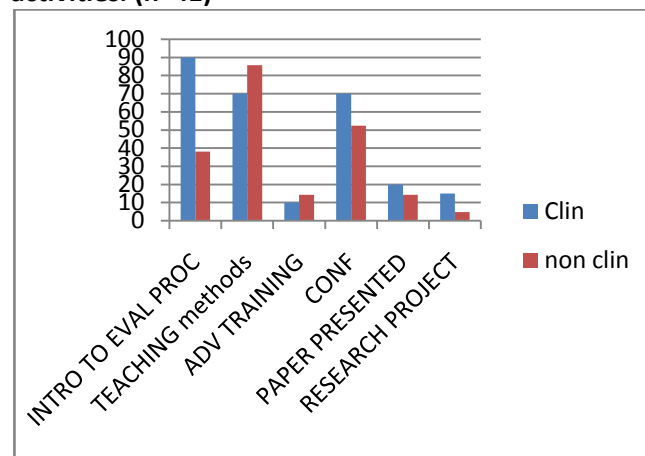


Chart IV shows that after attending the workshop the participants gained knowledge regarding various teaching learning methods. Prior to the workshop the staff was reluctant to attend conference or carry out a project in medical education. But after attending the workshop about 60% staff has attended the conference and 9.75% have undertaken research projects. 15% Clinical staff has undertaken research projects as against 4.76% by non clinical department. But more number of non clinical staff had undergone advance training in Medical Education as compared to clinical staff.

Discussion: Medical teachers assume their duties without formal training. In order to succeed in new teaching task faculty development is essential. Wilerson has suggested certain strategies for changing teachers' actions like 1) professional development(orientation to various faculty roles) 2) Instructional development (access to teaching improvement workshops, peer coaching etc.) 3) Leadership development 4) Organizational development. This kind of faculty development empowers faculty members to excel as educators⁹.

Basic workshop on medical education is mandatory for all the teaching staff. In this three days workshop various topics like Principles of adult learning, interactive teaching techniques use of audiovisual tools, Preparing MCQs, and structured clinical examination are covered. The teachers get the opportunity to learn about new teaching learning methods, media and also the assessment methods. From this study it was found that the 42.85% faculty from preclinical department were largely benefitted from preparation of MCQ. Since they are mainly involved in large group teaching newer teaching methods were introduced by 85.71% faculty after attending the workshop. 90% staff from clinical department introduced newer assessment methods like OSCE in their part completion exams.

Ozlem Sarikaya also reported that preclinical staff made changes in large group presentation¹⁰. In other studies by Musal b et al and Ozyurda F et al, the impact of workshop was reported on large group teaching which was modified by the improvement of didactic lecture^{7,8}.

The present study was planned as a part of a programme evaluation activity carried out by a structured questionnaire. The participants were the group of learners who after attending the workshop made necessary changes in their teaching activities and also in student assessment methods.

These faculty development programme help teachers to acquire new skills, which motivates them to carry out their roles effectively.

Our results show that professors modified their teaching practices less than their junior staff members. Ozlem Sarikaya had the same observation in his study¹⁰. Baroffio et al discovered that greatest improvement occurred among inexperienced teachers¹¹.

This programme encouraged teachers to gain knowledge about teaching practices, to implement new Teaching Learning methods and assessment skills which made the teaching more student oriented.

Long term impact of the programme was seen in the form of involvement of teachers in activities of MET. Staff members are willingly participating in the conferences by presenting their research work in medical education.

The teacher in the present scenario is expected to play multiple roles such as facilitator, curriculum planner, student assessor, mentor etc. Hence regular organization of such training programmes will be highly beneficial to improve the teachers' skills in imparting knowledge.

This study indicates the impact of workshop on teachers regarding the use of teaching-learning methods and media. Study shows the involvement of teachers in activities of medical education. It also indicates the initiative taken by the teachers for their own improvement.

These programme will enhance the efficiency and performance of the teaching skills of the medical teachers leading to work satisfaction and teaching confidence.

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