

Short communication

A study of medical education technology (MET) guidelines implementation in poorly performing first year medical studentsParmatma Prasad Mishra¹, Anshu Mishra², Hari Prasad³, Indra Kumar⁴, Shashi Bhushan⁵¹Associate Professor, ⁴Professor, ⁵Tutor, Department of Anatomy, MSD Autonomous State Medical College and MBH, Bahraich, 271801, Uttar Pradesh, India²Associate Professor, Department of Anatomy, R D Autonomous State Medical College, Ayodhya, 224001, Uttar Pradesh, India³Assistant Professor, Department of Anatomy, T S M Medical College, Amausi, Lucknow, 226009 Uttar Pradesh, India

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Corresponding author: **Parmatma Prasad Mishra**. Email: drparmatma@rediffmail.com**ABSTRACT**

Introduction and Aim: MET guideline is a compulsory directive of MCI which has to be implemented in medical education training program in all medical colleges in the country. Idea for research was originated by better university result of last year in which group dynamics, PBL, SDL, group discussion was implemented. The present study was conducted to improve the performance of poor scoring medical students utilizing MET guidelines.

Materials and Methods: 24 Students were selected out of 150 students on the basis of poor score between September to March from 1st year M.B.B.S. batch (2017-2018), T.S.M. Medical College and Hospital, Amausi, Lucknow. They were exposed to MET guidelines like group dynamics, PBL, SDL, group discussion etc. Their performance was observed in successive examinations.

Results: 92% students of study group showed improvement. But desired goal was achieved by 83% students.

Conclusion: Small group teaching and newer methods of teaching are helpful in improving performance (increase percentage of marks) of students.

Keywords: MET guidelines; poor performing students; problem-based learning; self-directed learning.

INTRODUCTION

Undergraduate medical education, as with any other educational program, needs ongoing improvement to meet the changing demands of medical practice. There is growing concern among medical educators that conventional modes of teaching medical students (lecture-based curriculum) neither encourage the right qualities in students nor imparts a life-long respect for learning (1). To improve the quality of medical education, the medical council of India has set different guidelines like problem-based learning, self-directed learning, group discussion etc. to be implemented in day-to-day teaching.

Studies have shown that problem-based learning curriculum students place more emphasis on understanding rather than only reproduction of content compared from students from the traditional curriculum (2, 3). Students of the problem-based learning curriculum found learning to be “more stimulating and more humane” and “engaging, difficult, and useful”, whereas students of the conventional curriculum found learning to be “non-relevant, passive, and boring” (4).

Keeping in view of above facts the present study has been designed to assess the utility of newer methods of teaching using same student in different time frame as case and control study group.

MATERIALS AND METHODS

Type of study: Prospective

24 Students were selected out of 150 students on the basis of poor score in first terminal exam of 1st year M.B.B.S. batch (2017-2018) of T.S.M. Medical College and Hospital, Lucknow. In this study, the students were divided into four groups; naming Omega, Achiever, Creative and Omex. Each group contained six students. They were exposed to MET guidelines like group dynamics, PBL, SDL and group discussion. Group wise performance of students was observed in successive examinations.

Statistical Application: Analysis and calculation by Parametric Test with percentile.

RESULTS

The performance of students was observed in successive examinations and compared from performance of previous examination (Table 1).

Table 1: Comparison of performance of Omega group students as pre-exposure and post exposure to PBL, SDL and small group discussion

OMEGA GROUP Roll no. 7, 8, 10, 23, 25, 27 (n=6)					
Roll No.	Pre exposure	Post exposure			
	Marks obtained in first term in % (Total Marks =100)	Marks obtained in % in 2 nd term (Total Marks =100)	Marks obtained in % in Pre-University (Total Marks =100)	University Results	Performance of students
07	42	48.5	56	Pass	Improved
08	47	33	41	Fail	Not improved
10	47	47	54.5	Pass	Improved
23	44	47	58	Pass	Improved
25	42	43	44	Pass	Improved
27	49	50	43	Pass	Improved

Table 2: Comparison of performance of Achiever group students as pre-exposure and post exposure to PBL, SDL and small group discussion.

ACHIEVER GROUP Roll no. 28, 32, 35, 36, 38, 44 (n=6)					
Roll No.	Pre exposure	Post exposure			
	Marks obtained in first term in % (Total Marks =100)	Marks obtained in % in 2 nd term (Total Marks =100)	Marks obtained in % in Pre university (Total Marks =100)	University Result	Performance of students
28	38	44.5	39	Pass	Improved
32	39	49.5	44	Pass	Improved
35	43	44	45	Pass	Improved
36	42	50	45	Pass	Improved
38	49	58	45	Pass	Improved
44	44	46	52	Fail	Improved

Table 3: Comparison of performance of Creative group students as pre-exposure and post exposure to PBL, SDL and small group discussion

CREATIVE GROUP Roll no 73, 83, 106, 107, 126 (n=6)					
Roll No.	Pre exposure	Post exposure			
	Marks obtained in first term in % (Total Marks =100)	Marks obtained in % in 2 nd term (Total Marks =100)	Marks obtained in % in Pre university (Total Marks =100)	University Result	Performance of students
73	37	25	36	Fail	Not Improved
83	37	38	48	Pass	Improved
106	46	51.5	56	Pass	Improved
107	41	45	43	Pass	Improved
115	34	40	44	Pass	Improved
126	33	34.5	48	Pass	Improved

Table 4: Comparison of performance of Omex group students as pre-exposure and post exposure to PBL, SDL and small group discussion

OMEX GROUP Roll no. 131, 136, 143, 145, 149, 150 (n=6)					
Roll No.	Pre exposure	Post exposure			
	Marks obtained in first term in % (Total Marks =100)	Marks obtained in % in 2 nd term (Total Marks =100)	Marks obtained in % in Pre university (Total Marks =100)	University Result	Performance of students
131	42	39	53	Pass	Improved
136	46	39.5	56	Pass	Improved
143	49	45	63	Pass	Improved
145	36	37.5	55	Pass	Improved
149	41	35	53	Fail	Improved
150	38	39	48	Pass	Improved

In present study is 92% (22) students showed improvement (increase percentage of marks) after implementation of MET guideline in teaching methodology. The desired result to get pass in the

University examination was achieved by 83% (20) students.

DISCUSSION

Teaching in medical sciences is always a challenging task reason being rapidly changing needs of health care services, upcoming researches and continuously adding latest trends in medicine. To make the teaching more effective, there is change from traditional lecture pattern teaching to small group teaching.

Moore *et al.*, found in their study that students who were enrolled at Harvard Medical School, United States, in problem-based learning curriculum learned in a more reflective way, memorized less than their peers, and preferred active learning (5). Compared with conventional students, PBL students place more emphasis on meaning than on memorizing, use journals and on-line databases as sources of information, use self-selected reading materials. They also show better interpersonal skills, psychosocial knowledge, and attitudes toward patients (4).

In present study we tested problem-based learning, self-directed learning and group discussion like teaching method on the students who were poorly performing and found them effective to improve the performance of students.

Merits of the study

MET guidelines implementation improved the performance of medical students in comparison to traditional teaching methods of teaching. It has also been observed that for better implementation of MET guidelines, a greater number of faculty and staff members are required.

Limitations of the study

Present study is implemented in a smaller number of students of one session only. Authors are continuing the same in successive batches for further enforcement of study results.

CONCLUSION

The implementation of MET guidelines is effectively helpful in the improvement of performance of students who were performing poorly earlier.

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CONFLICT OF INTEREST

Authors declare that there is no conflict of interest in the present study.

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