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COMPARISON OF SMALL GROUP DISCUSSION VS LECTURE METHOD IN TEACHING ORGANON OF MEDICINE TO UNDER GRADUATE HOMOEOPATHIC STUDENTS

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Abstract
To study and analyze different teaching methodologies like didactic lecture and small group discussion among second BHMS students at MNR HMC. Teaching has got a very important role not only at school level but also in higher education as it can help in generating effective professionals.
Materials and Methods: Students were divided into 2 batches of 11 students each. Each batch was exposed for the different teaching methods for same topic. MCQ test of 10 marks was given before and after the session to assess students understanding of the topic. Keeping this in mind the present study was planned to compare the two teaching methodologies.
Results: After the small group discussion, the learners scored 70 % in the evaluation test whereas it was 61 % before the session. And after Lecture method, the learners scored 58 % in the evaluation test whereas it was 31 % before session.
Conclusion: The study concluded that small group discussion ensured understanding as reflected in the test scores, as compared to Lecture method (i.e., teacher centered teaching).
Keyword: Small group discussion, Lecture method and Homoeopathy.

Introduction:

Medical education is facing variety of challenges in the 21st century, and it is in the midst of major transformation. [16] In teacher-centered education, students put all of their focus on the teacher. The teacher talks, while the students exclusively listen. The classroom remains orderly. Students are quiet, and the teacher retains full control of the classroom and its activities. Because the teacher directs all classroom activities, they don't have to worry that they will miss an important topic. Teachers are the main authority figure in this model. It is the primary role of teachers to pass knowledge and information onto their students. [17]

Learning is a complicated phenomenon as it involves complex mental activities such as critical thinking. The goal for the learning methodology personnel is to provide the developers with the best learning tools available, so that they in turn can have thorough understanding, knowledge and relevant skills for their career. Lecturing is one of the primitive and the oldest method of teaching and currently it is the most conventional educational technique. Lecturing is still, the predominant form of teaching in health care professional education. [10]

The Government of India recognizes Health for all as a national goal and expects medical training to produce competent "Physicians of First Contact" towards meeting this goal. However, the medical education and health care in India are facing serious challenges in content and competencies. [11]

Teaching has got a very important role not only at school level but also in higher education as it can help in generating effective professionals. The effectiveness of teaching depends upon how much has been received by the students. There are different methods of teaching – lectures, tutorials, CMEs, seminars, videotapes, case studies, small group discussions, etc. [12]

Since long time, teaching process is being followed in a traditional way mainly in the form of isolated didactic lectures. In this method passive absorption of information is done by the students in a disciplinary manner and then they are expected to recall the knowledge in a competitive manner during examinations. This method of teaching is being followed in many medical colleges of India as per curriculum of Medical Council of India. [1]

In medical education, there are various methodologies of teaching and learning each having its own advantages and disadvantages. Routinely for teaching large number of students, having its lecture (DL) is used. It is a teacher centered process, promotes passive learning and fails to motivate the students.

There are various teaching / learning methods with inherent as well as practical strengths and limitations of each. These include but are not limited to; lectures; small group learning, which can be problem based, case based, tutorial, case study, case scenario with discussions and debate; e-learning, web based, computer assisted; self-instruction modules/ exercises; site visits, community placement; personal reflection; self-directed learning, etc.

Medical education is related to the community services; so we need to teach our students to correlate the various subjects to create better doctors. Teaching different aspects of a topic by faculty members of relevant department instead of one department will better assimilate the knowledge. Ultimately this will impart the basic knowledge of the topic for better understanding of the various diseases which will create better doctors in society who will provide good health care service for community needs. Thus to improve effective diagnosis and better treatment of the patients and to improve the equality of the student's learning, integrated learning is need of an hour.

Lectures alone are not generally adequate as a method of training and it is a poor method of transferring or acquiring information even less effective at skill development and in generating the appropriate attitudes. Every effort should be made to encourage the use of active methods of teaching. [8] Students should be encouraged to learn in small groups, through peer interaction so as to gain maximal experience through contacts with patients and communities in which they live. While the curriculum objectives often refer to area of knowledge or science, they are best taught in a setting of clinical relevance and hands on experience for students who assimilate and make this knowledge a part of their own working skills.

Didactic lecture is used to explain simple to complex concept or a task to student or learner, however it has its own merits and demerits. Impact of didactic presentation depends on way of presentation, alertness, interest and intellectual level of the learner. Passiveness of the learner is a major obstacle in its effectiveness.

The term small-group learning can be misleading, as 'small' implies no definite number. The literature is equivocal on the number of students that constitutes an effective small group. Small-group teaching depends more on the features displayed by that group than on the number in it. Usually, but not always, meaningful interaction occurs more readily with fewer people. You may have your own preference. To you, effective groups may have less than 10 participants. However, some groups may work effectively with a larger number of participants; some may be ineffective with a smaller number. What matters is that the group shows three characteristics: active participation, work towards a specific task and reflection. [7]

Aim & Objective:

1. To compare effectiveness of small group discussion and didactic lecture among undergraduate Homoeopathic Medical students.
2. Use information resources to encourage development of critical thinking in students.

Material and Methods:

1. Second year BHMS students of MNR Homoeopathic Medical College.
2. MCQ test of 10 marks was conduct before and after the session to assess students understanding of the topics.
3. Topic from Organon of Medicine Homoeopathic was selected for BHMS.
4. Students are divided into 2 batches of 11 students each. Each batch was exposed for the different teaching methods for same topic.

The II BHMS students were selected for the study. A total of 22 respondents were selected on the basis of KNR University of Health Sciences marks, from the total student strength of 52 after having obtained their informed consent. Permission was granted by the appropriate authority, that Homoeopathic medical students could be approached and asked if they would take part in the study. The questionnaire devised for the present study consisted of ten questions multiple choice questions each for different teaching methodologies. Students were asked to tick the options whichever they felt was most appropriate answers. Sufficient time was given to fill the questionnaire.

We conducted an evaluation test of 10 marks multiple choice questions before the each sessions and after each session with the same question paper.

Based on the marks obtained in the KNR UHS 1st BHMS exams, we divided the total participants into 2 equal groups (Table no.1). Group-I with 11 students (9 females, 2 male) attended group discussion and group-II consisting of 11 students (8 females and 3 male) attended Lecture. After that an evaluation test was carried out for both the groups with the same question paper. The results were given on the next day.

Table 1: Shows the Mean and SD of Marks obtained before and after session

	Group I (No-11) SGD		Group II (No-11) Lecture	
	Mean	SD	Mean	SD
Before Session	6.18	0.60	3.18	1.47
After session	7	0.89	5.82	0.98

The completed questionnaires were collected, and the data of 22 students was entered into Microsoft Excel. Descriptive statistics were used for analysis of data. Frequency was expressed as percentage. The study was approved by Institutional Ethics Committee, MNR HMC, Sangareddy, Hyderabad, Telangana.

Inclusion criteria:

1. Second year students of MNR Homoeopathic medical college will be including in study. (i.e. Nov/Dec 2018).
2. Students are included in this study on basis of KNR University of Health Sciences marks of Ist BHMS (i.e. between 55 to 65 %).

Exclusion criteria:

The students, who scored marks below 55 % and above 65 % in KNR UHS of Ist BHMS, are not included in this study.

RESULTS:

Most of the students rated lecture method as the best teaching method. Reasons included; teacher provides all knowledge related to topic, it is time saving method; students listen lecture attentively and take notes etc. The group discussion was rated as the second best method of teaching because of more participation of students, the learning is more effective, the students don't have to rely on rote learning, and this method develops creativity among students etc. Students' perception and ratings about the interesting and effective teaching methods is a way to suggest improvements in teaching/ learning process.

In the observation, when asked about the preferred method of teaching agreed that the normal lecture as the most effective method of teaching followed by group discussion. Out of 22 respondents, equal number of students participated in this study from Year- II BHMS. Among them 17 (77.27%) are female and rest 5 (22.72%) are male.

After the small group discussion, the learners scored 70 % in the evaluation test whereas it was 61 % before the test. And after Lecture method the learners scored 58 % in the evaluation test whereas it was 31 % before the test.

Group-I which attended small group discussion class showed higher percentage of marks than Group-II (lecture). The comparison of marks obtained in the evaluation tests after group discussion and lecture reveals that the mean ± SD values are 7 ± 0.89 and 5.82 ± 0.98 respectively. The difference in the two values being statistically significant. The knowledge of learners was significantly increased after the session when compared with post test session in both the groups (i.e. SGD and lecture) ($p < 0.05$).

Table 2 gives the mean score of pre-test and pos-test by lecture and small group discussion method independently. The pre-test mean score by lecture method was 3.18±1.47 and after the session it was 5.82±0.98. And by small group discussion, the mean score of pre-test was 6.18±0.60 and the post-test mean score of the same group was 7.00±0.89. Using a paired t-test, the differences between the pre and post-test scores for each group was statistically significant.

Table 2: Mean score of pre-test and post-test of three methods

Method	Group	Mean	Number	Standard deviation	t- test (Sig)
Small group discussion	Pre test	6.18	11	0.60	The two-tailed P value equals 0.0047. By conventional criteria, this difference is considered to be very statistically significant.
	Post test	7.00	11	0.89	
Lecture	Pre test	3.18	11	1.47	The two-tailed P value equals 0.0010 By conventional criteria; this difference is considered to be very statistically significant.
	Post test	5.82	11	0.98	

Table 3: Mean score difference of post-test of two methods

Method	Group	Mean	Number	Standard deviation	t- test (Sig)
Small group discussion	Post test	7.00	11	0.89	The means of Group 1(small group discussion) and Group 2 (Lecture) are significantly different at $p < 0.05$
Lecture	Post test	5.82	11	0.98	

For comparing the effectiveness of two methods, variable showing the difference between post-test score of small group discussion and lecture was calculated. The mean increase of scores between the posttest was 7±0.89 in the small group discussion and was 5.82 ± 0.98 by lecture method. These differences were statistically significant (p value < 0.05) (Table 3).

Discussion:

A good teaching involves a good communication. Communication can be regarded as a two way process of exchanging ideas, feelings and information. It is a complex process and has five main components viz. sender (source/ teacher), receiver (audience/ students), message (content/ lecture), channels (medium/traditional chalk & talk, OHP & PPT) and feedback (effect). In this study we are trying to observe impact of different teaching methodology in second BHMS medical college.

It is considered through research that student is the best resource about quality of teaching, was 'productive, informative, satisfying, or worthwhile' (Theall and Franklin, 1990; Ellett and Teddlie, 2003). Further, scholars and enlighten people believe sincere effort and wishes will teach better and teacher will be successful when they accept criticism of students (Guilbert, 1991). Again when students perform better and even more than expected, it is thought academic faculty is more effective and quality teaching is ensured (Goe *et al*., 2008; Archibong and Nja, 2011)[14].

We feel a teaching method can be successful and will be able to draw students' attention when it is not only interesting informative and clinical oriented but is also able to fetch better marks for the students in the examinations and assessment tests. The newer innovative small group interactive teaching is a better process to learn the medical subject than traditional teaching. Some academicians are of the opinion that the most important purpose of such small group interactive teaching methods is to provide a clinical context for the acquisition of knowledge. [15]

In Indian medical college, lecturers are the most common form of teaching and learning. Although discussion methods in small groups appear to be a superior method of attaining higher-level intellectual learning but not suitable for Indian medical school due to poor number of teaching faculty members in comparison to students. Hence, the lecture is here to stay, so it is immensely important that it should be as effective as possible [14].

Conclusion:

Thus, it may be concluded from the present study that small group discussion (SGD) proved effective teaching methodology of learning as compared to traditional (lecture).

The new TL method (SGD) was found to be more reflective in the test score of student as compared to traditional one (lecture).

Both students and faculties had a positive attitude towards this new teaching learning method. So it is concluded that SGD proved more significant as compared to other teaching methods. Based upon the student feedback they had more positive attitude to the lecture method where they can clarify their doubts.

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