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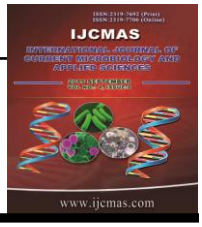

Short Communications

Evaluation of Small Group Discussion as a Teaching Method in Microbiology for Second Year medical Students in Brims Bidar: A Pilot Study

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Keywords

Microbiology, medical Students in BRIMS Bidar

A B S T R A C T

In India, Medical Microbiology subject is included in the curriculum of second year of medical students. Teaching plays a major role in medical curriculum. There are various modes of teaching medical microbiology such as lectures, tutorials, demonstrations, seminars, text book method, project method, small group discussions, study tours, problem solving method, team teaching, enquiry approach, videotapes, case studies etc. To teach a large group of students usually lectures are used. And to teach small group of students, demonstrations/ bedside clinics will be preferred. After thorough review of literature, we have found very few studies exist about the small group discussion as a teaching method in India. Hence we have undertaken the present study to observe the effectiveness of small group discussions as an effective teaching method in teaching medical microbiology.

Introduction

In India, medical microbiology subject is included in the curriculum of second year of medical students. Teaching plays a major role in medical curriculum. There are various modes of teaching medical microbiology such as lectures, tutorials, demonstrations, seminars, text book method, project method, small group discussions, study tours, problem solving method, team teaching, enquiry approach, videotapes, case studies etc. To teach a large group of students usually lectures are used. And to teach small group of students, demonstrations/ bedside clinics will be preferred.

After thorough review of literature, we have found very few studies exist about the small group discussion as a teaching method in India. Hence we have undertaken the present study to observe the effectiveness of small group discussions as an effective teaching method in teaching medical microbiology.

Materials and Methods

The present study was conducted in Department of Microbiology, Bidar institute of Medical Sciences, (BRIMS) Bidar, Karnataka in 50 interested, willing, male

(n=22) and female (n=28) students of second year medical students aged between 18 and 24 years, after obtaining voluntary informed consent.

The method was adopted from the literature. However slight modifications has been made to adapt to our subject (Hofer *et al.*, 2000; Kumar, 2003; Wilma *et al.*, 2014). The study group was randomly assigned into five sub-groups, each comprised of ten students. Study pattern was explained in clear language. Discussion topic was announced on the previous day so that the students can prepare for the study. The small group discussion method included a pre-test (written examination for 10 marks), followed by group discussion (for about 60 minutes) moderated by the professor and later a post-test (written examination for 10 marks) on the same topic discussed. Pre-test and post-test each included ten short answer questions and one mark was awarded for each correct answer. Identical pre- tests and post-tests were used. The discussion phase comprised of 60 minutes where professor had explained the topic in detail and students were also given opportunity to involve in discussion and to ask questions. After the discussion session we have conducted post test.

Data analysis

Data was analyzed by SPSS 20.0. Paired t test was used to test the significance of difference between pretests and post test scores. P value <0.05 was taken as significant.

Results and Discussion

Results are present in table 1. Significant difference was observed between pre and post test scores in all groups.

It was reported that small group discussions will help to improve academic performance of students (Goodenow, 1993; Roche *et al.*, 1997). Small group discussion was advantageous because it motivates students to involve in discussion actively and helps for retention. In medical colleges, students will have to study many subjects and will be busy with clinics from second year onwards. Hence it becomes difficult for the students to correlate symptoms and diseases. So it will be very difficult for the students to approach teachers for clarifying doubts after lecture classes. But small group discussions will help the students to interact themselves as well as with teachers.

Table.1 Mean pre and post test scores of different groups. (Values expressed in mean ±SD)

Group	Pre test score	Post test score	P value
Group 1 (n=10)	4.8±1.14	7.2±1.87	0.0031*
Group 2 (n=10)	5.0 ± 1.15	6.8 ± 1.62	0.0293*
Group 3 (n=10)	5.6 ± 2.17	8.1 ± 0.99	0.0034*
Group 4 (n=10)	5.0 ± 2.16	7.6 ± 0.69	0.0103*
Group 5 (n=10)	4.3±2.45	8.1±0.99	0.0008*

(*p value <0.05 is significant)

More over in lectures it will be difficult for the teacher also to concentrate on each student. But in small group discussion, this difficulty can be overcome. Our study doesn't deteriorate the lecture classes but we support small group discussions along with

lecturer classes for better understanding of students. In fact, previous studies reported that combination of lecture classes and small group discussions will help the students to perform better in examinations (Chetana P. Hadimani, 2014).

This study supports earlier studies also as we observed significant improvement in performance followed by small group discussions. However, small group discussions need more faculties in the department.

In conclusion, the present study provides evidence for efficiency of small group based discussions in teaching Medical Microbiology**.** We recommend further detailed and multi centre studies in this North Karnataka region with higher sample size to generalize the results.

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Reference

Hofer, M., Schiebel, H.G. &Garten, A. (2000) Innovative course concept for small group teaching in clinical methods, Results of a longitudinal, 2-cohort study in the setting of the medical didactic pilot project in Dusseldorf, Dtsch. 2000; 125(23): 717-723.

Kumar, S. How we teach; an innovative method to enhance interaction during lecture sessions, Advances in Physiology Education.2003; 27 (1-4): 20-25.

D.S.C.R. Wilma, D.R. Suresh, M.V. Chandrakala. Evaluation of Small Group Discussion as a Teaching-Learning Method in Biochemistry for First Year MBBS Students: A Pilot Study. South East Asian Journal of Medical Education. 2014; 8(2):43-47.

Goodenow, C. (1993) Classroom belonging among early adolescent students: relationships to motivation and achievement, The Journal of Early Adolescence. 1993;13 (1): 21-43.

Roche, A.M., Stubbs, J.M., Sanson, Fisher, R.W. & Saunders J.B. (1997) A controlled trial of educational strategies to teach medical students brief intervention skills for alcohol problems, Journal of Preventive Medicine.26, 1, pp. 78- 85.

Chetana.P.Hadimani. Effectiveness of Small Group Discussion Sessions in Teaching Biochemistry for Undergraduate Medical Students. South East Asian Journal of Medical Education. 2014; 8(1): 77-81.