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EFFECTIVENESS OF GROUP STUDY AMONGST STUDENTS OF I MBBS STUDENTS ON PERFORMANCE IN ANATOMY

Anatomy

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ABSTRACT

To study a subject as vast as anatomy, students and teachers come up with different ideas to make the subject absorbable. Various study designs are introduced to cope and gain a better understanding of anatomy. There are a variety of learning strategies that can be introduced to engage students and to promote their critical thinking and deeper understanding. The effectiveness of one such method was investigated in fifty medical students of first year. The concept was one in which medical students' study in social groups, which is thought to influence their learning. They were asked to participate in this programme and results obtained on the basis of their performance were outstanding.

KEYWORDS

Anatomy, Group Study, Medical Students, performance

INTRODUCTION

Anatomy is the branch of science concerned with the bodily structure of humans, animals, and other living organisms, especially as revealed by dissection and the separation of parts. It is one of the vast subjects in MBBS course which was previously taught in one & half year, which now must be studied and understood in the time period of one year. In the traditional educational mode, the teachers impart anatomy knowledge in the class and evaluate the teaching effects merely through the scores of final examinations. This method is not sufficient to introduce anatomy knowledge into the clinical courses, as the students passively learn the knowledge and gradually lose enthusiasm. To study a subject as vast as anatomy, students and teachers come up with various ideas to make the subject absorbable. Medical students' study in social groups, which influence their learning. Powerful learning environments comply with the cognitive architecture of learning [1] combining learning within a meaningful context, learning as an active process and learning in groups (collaboration). These learning environments assemble small groups as the units in which learning takes place to 'teach' undergraduate medical students. In such small groups, students dissect the cadavers, explore the structures and their relation. They are supposed to solve meaningful problems, share information and discuss conflicting ideas.[2] Sharing knowledge in the collaborative process incurs an implicit cost, while the expected returns of relevant new knowledge and/or expertise are uncertain. Some students are therefore less willing to share knowledge than others.

Group member familiarity might reduce costs of sharing information among students.[3,4] Second, groups must invest time and energy in the collaborative process before the group can become effective. [5] Changing the composition of groups too quickly might prevent groups from reaching the beneficial effects of collaboration in groups. Changing the composition of small tutorial groups in the medical programme to ensure higher member familiarity among students induced more effective group dynamics as indicated by significantly more positive feelings of psychological safety, social cohesion, group potency and group learning behavior when a new group was assembled. [6] The effectiveness of methods such as cooperative learning, Problem-Based Learning (PBL) or Case-Based Learning (CBL) has been widely studied. CBL has been used in different medical schools as an alternative to traditional education with the aim of students to collaborate in small groups. [7,8] The use of competitive learning techniques motivates medical students, improves their academic outcomes and may foster the cooperation among students and provide a pleasant classroom environment.[9]

Some medical students form informal social study groups, which may influence academic outcomes and facilitate learning. Various Important themes had been identified with regards to social study including the nature of social study, the utility and value of social study, and student preferences with regards to social studying. It can be a source of motivation, accountability, support and well-being. [10] Grey literature sources suggested that informal group study can make learning more active and engaging [11,12] both through checking one's understanding of concepts, and by teaching peers. This suggests that informal group learning may help students to become more active and engaged in their learning during their independent study time.

One form of cooperative learning, called reciprocal peer teaching (RPT), illustrates circumstances where students alternate roles as teacher and student. By assuming the responsibility of teaching their peers, students not only improve their understanding of course content, but also develop communication skills, teamwork, leadership, confidence and respect for peers that are vital to developing professionalism early in their medical careers. A debriefing questionnaire was administered at the end of the course demonstrating that 100% of students agreed the RPT experience increased their understanding of the topics they taught and 97% agreed it increased their retention of information they taught to their peers. In addition, 92% agreed that RPT improved their communication skills, which can be applied beyond anatomy to their careers as future physicians. [13] With all different methods adopted by teachers and students to make studying an easy procedure, formal group studies have also been used which was experimented in our study.

AIM

With this study, we aimed to observe the effect of group study and draw an inference of mode of study and results in anatomy practical examination.

OBJECTIVES

1. To observe internal examination of 1st semester batch MBBS student
2. Retrospective approach to students regarding their way of studying the subject Anatomy in short time
3. To draw an inference on effect of mode of study and results in practical examination.

METHODOLOGY

Study design: It was an observational study.

Study setting: The study was conducted in the Department of Anatomy of CNMC, Kolkata.

Sample size: Fifty 1st semester MBBS students belonging to a designated sub-group were recruited for the study.

Ethics consideration: Approval form the ethical committee was taken prior to the initiation of the study.

Inclusion criteria: The subjects which were included in the study were those who gave informed consent

Exclusion criteria: The students who did not give informed consent were excluded from the study.

Data collection tools

Results of internal practical examination were used as data collection tools.

Data were collected using a proforma which was filled by the students and their results on internal examination was compared. The analysis was done using MS Excel.

RESULTS

On comparing the exam results, it was seen that a higher score was obtained amongst those students who studied in groups as compared to those who studied partly/sometimes in groups or alone. (Table 1) It is seen that students not reading with friends are not in good scoring except a single student scored high might be due to extraordinary intelligence. Students failing to score even passing marks are in group of alone studying. Highest marks are seen to be scored by members who chose group study. It is observed that the even the minimum score obtained by students of groups is higher than the minimum score obtained by students studying alone or occasionally in groups.

Table 1: Scores obtained in Anatomy Exam

S.No.	SG	SP	SA
1.	80	60	69
2.	76	65	53
3.	78	67	50
4.	75	65	49
5.	76	64	48
6.	68	58	48
7.	67	56	
8.	68	56	
9.	65	59	
10.	60	54	
11.	76		
12.	65		
13.	67		
14.	68		
15.	65		
16.	80		
17.	74		
18.	75		
19.	76		
20.	74		

(SG= studied in group; SP = studied partly in groups; SA= studied alone)

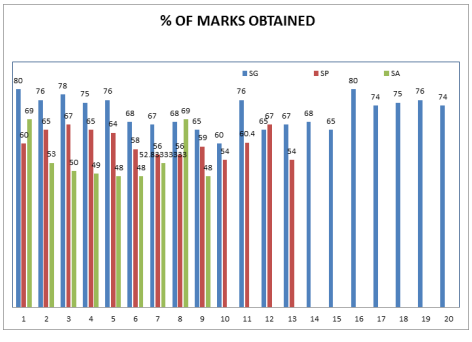

Table 2. Account of marks obtained by students

	Students under Group study purely	Students under Group study partly	Students with no Group study
Marks obtained %	20	12	8
Average	71	60	52
Max	80	67	69
Min	60	54	48

DISCUSSION

The anatomy course is a fundamental and difficult course for medical students. To improve the quality of anatomy education, previous researchers developed some methods, eg, problem-based learning method. [14] The results of a study indicated that TBL enhanced the examination scores and the enthusiasm, initiative learning ability, communication ability, and team awareness of these students. The exploration of team-based learning (TBL) method in anatomy teaching revealed that this method could improve not only the test scores of the students but also their study enthusiasm, initiative learning ability, communication ability, and team awareness. [15]

It is common that students after entering medical college choose to stay apart from each other, struggling at completely new academic environment and sometimes having language barrier due to which they cannot follow the classes or demonstrations or dissections. But at same suffering, friends are approaching each other for their doubt clearance which makes them quite comfortable in friendship along with utilization of time regarding discussion on Anatomy class and making themselves happy after digesting so many difficult areas of Anatomy. As a result of group studying, where students teach and learn from each other, they appear to be confident and comfortable on speaking on topics prepared by themselves.

Another study surveyed perceptions of first-year DPT students in response to a peer teaching method, using a structured 10-item questionnaire and a five-point Likert scale. Second-year DPT peer teachers provided written reflections about the benefits and challenges of serving as a peer teacher. Results revealed that 13 planned peer-teaching experiences provided by four second-year DPT students were valuable and promoted a firm understanding of anatomical relationships important for the clinical competence of physical therapist students. Moreover, peer teachers acknowledged acquiring clinically desirable teaching, academic, organizational, and time management skills from the experience. [16] Even though most of the teachers still choose lecturing as their primary instructional strategy, it is now time for a new way of conceiving large-class learning. Group learning can be used effectively within adult education classes. This teaching strategy can be used to enhance achievement and socialization among students and contribute to improved attitudes towards learning and working with others, including a better understanding of students from diverse cultural backgrounds. [17]

CONCLUSION

Group study improves test scores of the students and also their study enthusiasm, initiative learning ability, communication ability, and team awareness. The academic outcomes of group students were significantly higher than those who reportedly studied alone. Groups afford learning support for their members and motivate attendance and preparation for class, build student connectivity and make them recognize that good communication skills and interpersonal relationships are very important to their success. The students choosing group studies, had to study in a daily basis, either to propose challenges or to answer those proposed by their classmates. This fact could have contributed to a better grading and in a higher difference compared to the grades obtained in related courses during the first year of Medicine. Group learning calls for the construction of a better educational experience for all students and for a better environment in which teachers can be professionals.

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