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Small group teaching: An effective way of learning in medical education

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Abstract--The medical education is shifting from teacher centric methods to student centric methods in these times. Nowadays more emphasis is given on learning component as compared to teaching component. Earlier, the large group teaching was considered as the principle method to deliver the content to the large number of students. But since few years, the small group teaching has over taken in imparting the knowledge as well as skills in medical students. The small group teaching plays a key role in developing confidence, self learning ability, critical thinking as well as problem solving skills, and leadership & team working capacity among the students. In this method, the educator plays a role of facilitator rather than lecturer, where the students are given problems or tasks instead of readymade solutions. It provides opportunity to the students for interactive discussion and masters them in communication skills also which is need of the time. Small group teaching demands time, resources, well planning and active participation from both educators as well as learners. If some principles are considered and followed then it can give better outcome and can be made enjoyable reflective learning experience for students.

Keywords---small group teaching, medical education, educator, learning.

Introduction

Learning is always life long process and it demands patience as well as dedication.^[1] The flexibility, energy and commitment is essential for effective

teaching learning. The Teacher should be able to understand the variation in learners and according to that they should be able to implement the various techniques also. Most of the common technique to deliver the content is traditional lecture.^[2] Although traditional lecture can deliver the large content to larger number of students within short span of time, but it is monotonous. Large group teaching is always passive learning where it is difficult to assess the learning ability of learner. In the large group teaching, it is difficult to give attention to each and every student and it is always a huge challenge to keep students motivated, enthusiastic and interactive.

While the small group teaching can easily motivate the students, develops confidence and provide enthusiasm. Small group teaching can be helpful in mastering their communication skills as it provides opportunity for interaction with teacher and students. Practicals, tutorial and problem based learning in small group teaching are helpful to acquire the skills among the students and enhance their self learning ability also.^{[3][4]}

Benefits of small group teaching

Small group teaching is helpful to build the confidence in the students and provides encouragement for the further learning. Small group teaching provides opportunity for interaction between learners and educators. Hence it has taken the front seat as an effective way of learning in medical students. The main aspect of small group teaching is to provide deep learning with specific learning objectives and to ensure imparting the learning at the end after specified time. It encourages learner to have critical thinking, self learning ability and problem solving skills, effective communication and makes the learner responsible and erudite. It is also helpful in developing analyzing capacity and logical reasoning. The learners can develop intellectual as well as professional abilities through this small group teaching which is unfortunately lacking in large group teaching. The students are finally well skilled with communication and also develop team working skills.^{[3][5][6]}

Problems associated with small group teaching

Although the small group teaching looks promising but it is not so easy also. It has its own issues which needed to be addressed to provide effective small group teaching. Most of the times tutor or teacher delivers a lecture only rather than conducting interactive session. Sometimes teacher talks too much which becomes monotonous and students don't talk with each other or with teacher. It may happen that the students come unprepared even after the prior clear instructions. So it demands more time for proper thorough planning, to give comprehensible instructions and to involve students effectively for better outcome. Sometimes only one or two overenthusiastic students interact with the teacher and block the opportunity for other students. For effective learning, students should be given open ended problems rather than providing instant solutions. ^[7]

Various methods of small group teaching

There are various methods which can be used for effective learning. Some of them are as follows:

- **Tutorial**
In tutorial, an educator addresses a few numbers of students where the topic is already assigned. A small group of students discusses among themselves already given material and students need to come prepared for it.^[8]
- **Think-pair-share**
Students are given some topics or problems, and they are asked to make a pair then to share their ideas with each others. Following that the idea to be collected from each and can be put on the blackboard or chart and to share with all students.
- **Buzz group**
Students have to make pairs of two, three, fours or fives. A task is given to the students. They discuss with each other creating a hubbub of noise as they work. After then the outcome is shared with the all students though their feedbacks. Their feedbacks can be written on blackboard, flip chart, on transparency through overhead projector or through PowerPoint presentation.
- **Snow ball**
Snow ball is the extension of Buzz group, where student will make a pair of two. Gradually these pairs join up to form the group of fours and then four to eight, leading forming whole group again. During this whole process they will exchange their ideas with each other. It builds confidence of students and sharpens their ideas by engaging in small group discussion before moving onto large group. During Group round- each person will be given brief time to speak in turn round the group. For e.g 20 sec/ 1 min
- **Fishbowl**
Student will seat in that manner forming two circles. The students in inner circle will discuss the given task or problem and the students in outer circle with observe them for their discussion pattern, soundness of argument and .active participation by all the participants etc. after that feedback will be taken from them and roles of them will be reversed.
- **Jigsaw group or Cross over**
Students are divided into subgroups that are subsequently split up to form new groups in such a way that it maximizes the crossing over of the information It can be conducted in two steps, where in first step there will be formation of subgroup to discuss one facet. Following that in next step new sub groups will be formed in such a way that each new group will contain one representative from each old group. Through this method a maximum content can be learned in short time. ^[9]
- **Circular questioning**
In this method, each student will frame the question and pose it to the student seating next to him or her. A student who has to answer this will have specified time of approximately one or two minutes to submit response. This cycle will continue until and unless each one of the students has participated. ^[10]

- Other methods
The other small group teaching methods also includes case discussion, seminar, workshop and mini projects work, role play etc. ^[11]

Principles for effective small group teaching

There are certain tips to make the small group teaching more enjoyable and effective. We need to plan well in advance for the smooth conduction of small group teaching. It should be fun rather than boring & monotonous for the students. It should be interactive, encouraging and motivating for the students. We should vary with the teaching methods so students don't get bored with same technique all the time. An educator should listen attentively, question effectively and should reinforce the students' contributions. ^[12]

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