

Student seminars as a means of integrating basic science subjects at the Manipal College of Medical Sciences, Pokhara, Nepal

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Bishnu Rath Giri (BRG) is a eighth semester medical student and he is keenly interested in "unconventional" ways of learning and tools which can make learning fun. He is also interested in complementary medicines and ways of improving health care delivery in rural Nepal.

Ravi P Shankar is Assistant Professor of Pharmacology and he is keenly interested in teaching-learning methodologies and student attitudes towards learning. He is also interested in drug use patterns in the community and complementary medicine use in Western Nepal.

Nepal is a poor, mountainous developing country in South Asia and home to the Himalayas, the tallest mountain chain in the world. Due to a lack of resources a majority of educational institutions lack adequate infrastructure and proper facilities for teaching, where learning with audiovisual and other technological aids remains a distant dream. Chalk and blackboard are the only audiovisual aids and creative approaches to the learning process are almost absent.

BRG says, "I did my elementary, secondary and higher secondary education in a similar, humdrum manner. But I found a significant difference in the teaching learning process after I joined the undergraduate medical course at the Manipal College of Medical Sciences (MCOMS), Pokhara."

Student seminars are a widely used teaching-learning methodology and have been used in an Indian medical college along with other learning methodologies to improve physiology teaching.¹ At MCOMS there are fortnightly seminars on different selected topics. A few of the topics during the present academic year have been; homeostasis, bronchial asthma, malaria,

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etc. The topics are chosen with the aim of giving students an idea of basic concepts, and in turn helping them understand pressing health problems and achieving integration between different departments. The Basic Sciences departments include Anatomy, Physiology, Biochemistry, Pathology, Microbiology, Pharmacology and Community Medicine and each department coordinates seminars in turn. The coordinating department decides the various aspects of the topic to be presented during the one hour seminar and allots the subtopics to different students. The seminar team consists of around ten students and a faculty member from the coordinating department.

There are no hard and fast rules on how to go about organizing a seminar. But usually the student presenters are given an overview of the topic by the coordinator and then the allotted subtopics are discussed with the individual students. The students search for the material in textbooks, journals, databases, CDs and the internet. A rough outline of the material to be presented is made and then the students

convene with various departments depending on which topics were allotted to them. The material is polished, tightened and diagrams, sketches, animations and other aids are added and the subtopics are compiled for a practice session.

During the practice sessions the team members and the coordinating faculty look at the coherence of the presentation, areas of repetition, omit the less important information and make up the deficiencies observed. The team has lot of practice sessions and is well prepared with the script, animations, slides, flowcharts etc. The most commonly used audiovisual aids during our presentations are the OHP and the LCD projector.

After the presentation the faculty members grade the seminar. PRS says, "As faculty members we look at how well the presenting team has managed to get their message across to the audience in the allotted time period. The coherence of the presentation is looked into and the level aimed at is that of the first or second year undergraduates."



Sunrise on Everest

Humour spices up the proceedings and makes the seminar effective. The audience is kept alert and attentive. Seminars conducted in a dark hall may otherwise act as a potent hypnotic. Depending on the topic and relevance role play may also be included. We had a seminar on Bronchial asthma. BRG played the role of a poor farmer who was an asthmatic living on a hilltop and who had a small strip of land at the bottom of the valley. The "farmer" did not have any regular source of income and had seven children. The presentation illuminated the socioeconomic aspect of the disease and its impact on the quality of life. PRS says,

"I really enjoyed interacting with BRG during the asthma role play. The way he approached the problem and the gentle humour as he reminisced about how asthma had torn apart the fabric of his life was commendable."

By using seminars as a teaching aid the whole class learns the particular topic in an integrated manner. Each particular problem is looked at from different angles and the seven basic science departments work together as a team. In this way learning is made interesting and activity based. The facts mentioned remain in the memory of the students for a long period of time. The presenter learns how to present his or her knowledge in an effective manner. The students learn how to work in a team and student-teacher relationships are strengthened. An important benefit is the development of the art of public speaking and self-confidence on stage. The students learn to put across their ideas in an interesting and effective manner. This skill will be important during their presentations and communication skills sessions during the basic science course. The skill will be useful



Annapurna south and Hiunchuli

during scientific presentations in their future career. PRS says, "Seminars help to overcome the stage fright and our students then begin to enjoy themselves thoroughly on stage whatever the occasion."

The seminars also have some negative aspects. It eats up a lot of time of both the student and the faculty. Some students just mug up their parts without really understanding the meaning. There is no interactive discussion session after the seminar and the audience is mostly passive listeners. (The topics for the seminar are usually the same. However, we do try to include a few new topics each semester. The suggestion of a discussion at the end is being actively considered at the present. However, the time allotted is only one hour in a packed academic schedule - PRS).

Basic sciences teaching combined with regular hospital visits will play an important role in preparing the students for the clinical years of study. The first two years of basic science

teaching are integrated and seminars help in the holistic development of a particular topic. We have students from different nationalities and the seminars help us to break down the barriers of caste, religion, socioeconomic status and nationality. The students continue to have seminars during the clinical phase of their training also and in many cases the topics discussed during the basic science years are covered from a more clinical perspective. We begin preparing for seminars around two weeks in advance and those are a fascinating two weeks of intellectual and academic excitement. We would not like to miss that for anything in the world!

REFERENCE

I. Nageswari KS, Malhotra AS, Kapoor N, Kaur G. **Pedagogical effectiveness of innovative teaching methods initiated at the Department of Physiology, Government Medical College, Chandigarh.** *Adv Physiol Educ* 2004; 28: 51-58.



Small group teaching



The Manipal Teaching hospital by night



Preparation for a seminar