

STUDENT-CENTRIC METHODS USED AT MGIMS SEVAGRAM

At MGIMS we use several student-centric methods to enhance the learning experience. The following methods are used:

Experiential learning/ Learning in the community:

- **Social Service Camp:** A month after admission all students are taken to a village for a residential camp of 15 days, where the students experience the same conditions as the inhabitants. They reside in the village and learn from the community. Each student conducts socio-demographic, dietary and health appraisals in three or four families. We have developed a well-structured journal for recording different aspects of the health assessment for each family. Following the health appraisals performed at household level, each student prepares individual diagnosis for each family member and family diagnosis for each family allotted to him/her. Information for all families in the village is compiled to prepare community diagnosis. Students also conduct short projects during the camp; e.g. feeding practices for children, dietary assessment at family level, physical activities among adults, care of elderly etc. The roles of village health workers, school teachers and village health committees are examined. The students are also able to observe that the identification and solving of health problems by the villagers themselves is of considerable importance and how the community leaders, social organizations and village health committee work together for health. This Community–Academic partnership offers unique opportunities of great importance for learning viz. the social and cultural determinants of health, health promotion etc.



Due to this camp approach of community-based training of medical students a heightened understanding is gained of the need for adequate nutrition, safe water and basic sanitation, and of the influence of various socio-economic and cultural factors on health. The concept of family health care is brought home to the students with the help of auxiliary nurse midwives, social workers, health educators, sanitary inspectors, psychologists and social physicians working in the villages.

- **Monthly village visit following social service camp:** Following social service camp, the students visit their adopted village every month on a Saturday. During these visits

they follow-up families allotted to them. This exercise helps them understand the common health problems for rural population, their beliefs related to health and diseases, their health seeking practices etc.



In addition, there is a learning theme for each visit. Students are briefed on this topic. While they visit their allotted family during the monthly visit, they collect information from their families on the topic. They also provide the family members relevant health information on the topic. This provides an excellent setting for learning communication skills.

We use e-learning for the social service camp and monthly village visits. For topics on monthly village visit, learning resources are being posted on an e-learning course specially developed for this purpose a week prior to the monthly village visit. The students go through the learning resource and come prepared on the topic. They also enter the information collected from their allotted families in online forms developed for this purpose.

Participatory learning

- **Re-orientation of Medical Education (ROME) Camp:** Re-orientation of Medical Education (ROME) camp is a two-week residential camp at one of the rural centres of the Department of Community Medicine (DCM). The students stay at the RHTC and do clinical case study, survey for assessment community health needs and other activities in the villages of field practice area of the RHTC. The camp curriculum focuses on primary health care and attempts to create conditions for the students to gain a hands-on understanding of the nature of rural health problems.



- The camp is an integrated approach to public health and clinical disciplines where the field clinics for students are arranged within the patient's house. For one week daily in the morning hours (9am-12pm) faculties from Medicine, Surgery, Pediatrics, OBGY, ENT and Ophthalmology visit the RHTC and take clinical case presentation in the families from a nearby village. Attempt is made to imprint on the minds of budding doctors the role of family, environment and culture on origin, progress of the disease and treatment seeking behavior. The students are taken for exposure visit to various Government Health Facilities, e.g. Subcentre, Primary Health Centre, Rural Hospital and interact with health care providers. Discussions are held on various roles of a PHC medical officer, importance and approaches for community mobilization and health promotion, management of health management information system etc. Interaction with District Health Officer and other District level Program Managers are organized in which implementation of various National Health Programs are discussed.
- The students are also given practical exposure on assessment of community health needs. After being trained on the methods of community health needs assessment, the students identify 3-4 issues for community needs health assessment, develop plan, prepare tools, do data collection, analyze data and present their final report it during the valedictory function.

Assessment:

Formative assessment: During the community teaching (Social Service Camp, Monthly village visit and ROME Camp), the students are under supervision of faculty and post-graduate students from the Department of Community Medicine. They are

observed frequently, while they are involved in these community processes (e.g. collecting information, providing health education, designing data collection tools, data entry and analysis etc.) and feedback is provided.

Summative assessment: During the final examination in community medicine, the students are taken for family study to their adopted village and one of the families, from the families allocated to them during their social service camp and monthly village visits, is provided to them for family study. Apart from their performance during the examination, they are also given credit for their rapport with the family and the changes they brought in the household health practices during their community learning exercises.

Academy of Basic Medical Sciences: The Academy of Basic Medical Sciences is a body of faculty and students from the I MBBS. Here each student is expected to present a seminar on a topic of clinical relevance. Students prepare innovative models and demonstrate learning.

Faculty from Anatomy, Physiology and Biochemistry departments facilitate these seminars. In a tiered method, students go through three rounds and the best presentations are awarded.

Integrated/ Interdisciplinary teaching:

Both horizontal and vertical integrated teaching sessions are conducted at MGIMS. Collaboration between preclinical, paraclinical and clinical faculty where they conduct sessions together. At undergraduate level, topics like liver, kidney, pancreas are taught by horizontal integration. Vertical integration was done in topics like nephrotic syndrome, hypertension, thyroid, rheumatoid arthritis etc. During the pandemic, some integrated teaching sessions were done online. (*Sample schedules attached with this document*)

Problem solving methodologies

Both problem-based learning and case-based learning are used in different departments for teaching.

Problem-based learning: The Department of Community Medicine uses problem-based learning for 4th, 5th and 6th semester students. These cases are related to reproductive and child health, communicable and non-communicable diseases. The triggers used are either paper case scenarios or real patients. Each case is discussed over four sessions with three days of self-directed learning in between. Students are given demonstrations of related topics like counseling etc in the intersession period to deepen their understanding.



Case based learning: The Departments of Biochemistry and Pathology use Case based learning to teach undergraduates in I and II MBBS. These are paper based cases which are given in advance to the students. The objective is to teach them rational use of investigations and to teach them the applied aspect of basic sciences (*Sample cases attached with this document*)

Interactive teaching

Teachers are trained during the basic medical education technology workshops to make their large group teaching more interactive. This is by using methods such as questioning, buzz groups, quizzes, brainstorming etc. Scientific methods to introduce interactivity are taught. Teachers go through microteaching sessions in these workshops and receive feedback on how to improve these microskills. Almost all departments use small group discussions and interactive methods for teaching.

Self-directed learning

Self-directed learning has been introduced in the time table as part of the competency-based curriculum. Besides these, SDL is incorporated in different elements such as problem-based learning and flipped classrooms. Faculty have been trained in SDL as this is a session in the basic course workshop on medical education technologies.

Patient-Centric and Evidence-Based Learning

Campus wide free access to UpToDate: Since 2012, MGIMS has bought an annual campus wide subscription of UpToDate®, an evidence-based, physician-authored clinical knowledge resource which clinicians trust to make the right point-of-care decisions. Medical students, residents, faculty and researchers at MGIMS now use UpToDate in diverse locations - in their classrooms, in the post-graduate teaching sessions, at the point of care in the hospital wards and intensive care units and even in the crowded outpatient departments. The evidence-based electronic source of information helps

doctors to use the most appropriate screening test, order the most reliable diagnostic test, choose the best option for their patients, compare and contrast the two modes of therapy and predict the outcomes of their patients. By combining rich experience with evidence, now the doctors at MGIMS help patients get the best therapy that is also tailored to their socioeconomic status, their wishes, and their choices.

Learning in the Humanities

The new competency-based curriculum has introduced the AETCOM module. The components of the AETCOM module are incorporated in each year of the MBBS course. Besides this, the Bioethics Unit of MGIMS conducts several sessions to raise awareness about social issues such as gender diversity, environmental consciousness etc.



Topics such as respect for the cadaver, empathy, breaking bad news and communication skills are also conducted. Theatre of the Oppressed formats are also used to acquaint students with their personalities and begin a journey of self-discovery



Project-based learning

Dr Sushila Nayar Scheme for Promotion of Undergraduate Research:

At MGIMS, Sevagram, efforts have been made to build research aptitude of undergraduate students through provision of a capacity-building workshop followed by participation in community-based group projects under Problem Solving for Better Health initiative (PSBH), and later through a structured research mentorship programme for interested students. Students apply for research studentships offered by Indian Council of Medical Research short-term studentship (ICMR STS) and/ or Maharashtra University of Health Sciences short term research grants (MUHS-STRG). In 2014, an annual award was instituted for undergraduate research named after our founder Director, Dr Sushila Nayar. The award session provides a platform for young researchers to hone their skills in presenting scientific research and prepares them for dissemination of research findings in scientific fora. Beginning 2017-18, the undergraduate award was made part of a comprehensive approach to build a conducive environment for undergraduate research, known as 'Scheme for promotion of undergraduate research', and includes research grants, travel grants, incentives for publication of papers and periodic need based workshops in order to build the research aptitude of undergraduate students. Students are divided into groups and encouraged to carry out research projects in the community on relevant issues. They are funded by the Dr Sushila Nayar Scheme for Promotion of Undergraduate Research.

Role plays and mock drills

Several clinical and para-clinical departments teach using role plays and emergency drills to drive the importance of collaboration, team work and cooperation home. Role plays are also used to teach communication skills.



USE OF CASE BASED LEARNING IN CLINICAL PATHOLOGY TO TEACH RATIONAL USE OF INVESTIGATIONS TO UNDERGRADUATE MEDICAL STUDENTS



ANSHU

Department of Pathology, Mahatma Gandhi Institute of Medical Sciences, Sevagram (Maharashtra), INDIA

AIMS & OBJECTIVES

To sensitize second year medical students to the logical approach and rational use of investigations by using case based learning (CBL) in the teaching of Clinical Pathology.

METHODOLOGY

- 8 lectures taken on topics in Clinical Pathology
- Pre-test taken for undergraduate students
- Pathology residents trained in facilitating group discussions
- Case scenarios given to students & residents
- Students divided into 6 groups, each with 2 residents as facilitators
- Group discussions (GD) conducted based on clinical case scenarios
- Post-test taken for undergraduate students
- Presentations of summarized findings from each group
- Feedback collected from students and residents
- Test scores and feedback analyzed

RESULTS

Mean test scores:

Pre-test: 11.9

Post-test: 13.1

RESPONSES :

AVERAGE SCORES ON A 5-POINT LIKERT SCALE

	STUDENTS	RESIDENTS
CBL helped understand rational use of investigations	4.57	4.25
Case based learning improved problem solving ability	4.15	4.33
CBL helped in understanding concepts better	4.21	4.75
GD brought in more interaction between students	4.00	4.60
GD can be used along with lectures to teach approach	4.24	4.25
The residents who acted as facilitators were helpful	4.72	-
The group activity was conducted in a systematic manner	3.87	4.00
I had an opportunity to express myself and clarify doubts	4.03	4.33
Presentations from each group helped me to learn better	3.69	-
CBL can be introduced to teach other topics as well	3.96	4.33
CBL should be continued for future batches	4.45	4.66
Sessions for residents on facilitating GD were useful	-	4.50
Introducing GD in resident academic activity was helpful	-	4.75
The experience helped in improving my teaching skills	-	4.60

REACTIONS FROM STUDENTS AND RESIDENTS

“Refreshing change from regular college spoon feeding”

“New pleasant learning experience. Please continue it. I like it.”

“Everybody got a chance to speak. I was not afraid to be wrong.”

“It was a relief from the firing squad that we face every week.”

PROBLEMS ENCOUNTERED

- Too time consuming method: Takes time to see obvious results
- Needed better facilitation and student participation
- Resident activity abandoned as faculty felt group discussions were 'stage-managed', going too haywire and were not exam-oriented

DISCUSSION

- Case based learning allowed students to learn the rational approach to ordering investigations.
- Self-directed learning involves the learner as an active participant, encourages the development of a deep approach to learning and discourages rote learning.
- Group discussions are an excellent method to improve understanding and retention of topics in an enjoyable manner.
- CBL allows students to monitor their own learning and thus gain a degree of self-direction and independence in their studies.
- Most medical educators are not yet in a frame of mind to shift from the role of a didactic teacher to that of a facilitator of learning.

CONCLUSIONS

When done in an organized manner, case based learning is a useful tool to sensitize students to the logical approach for rational use of investigations.

REFLECTIONS

It is important to try to involve as many people in your endeavour if you want to sustain it for a longer duration. This makes the process more tedious and needs more patience- but it is worth the effort.

SAMPLE PBL CASE: Dept of Community Medicine

Posting 1 - PBL Case 1

What are the services available for me?

During her routine visit to a family, Auxiliary Nurse Mid -wife (ANM) Anita is told that 24 year old Meena is 5 months pregnant. On asking her Anita discovers that she has never got her health check -up done after becoming pregnant.

Anita : Come for your health check up to the Anganwadi center in your village during the next village health nutrition day.

Mother -in -law of Meena : I had been advising her to visit Anganwadi Center to register her pregnancy and also to meet you. But, she did not follow my advice.

Meena : What are the services available? Why should I come there?

Anita explains the services that Meena will receive during her pregnancy including screening for danger signs and counseling.

Resources:

- Park's Textbook of Preventive and Social Medicine

Chapters: Health Programs in India, Preventive Medicine in Obstetrics, Paediatrics and Geriatrics, Nutrition and Health

- Textbook of Public Health and Community Medicine; AFMC, Pune, Page No.: 809 - 825

- Guidelines for Antenatal Care and Skilled Attendance at Birth by ANM/LHV/SN

- A brief on Village Health and Nutrition Days (link to NHM webpage)

- Guidelines for Village Health and Nutrition Days

- For ICDS Anganwadi Services - Integrated Child Development Services (Scheme)

SAMPLE CBL CASE: Department of Pathology

CASE 1:

Arvind Sharma, a 50 year old male presented with complaints of polyuria, polydipsia and polyphagia. He also complains of feeling fatigued and weak since the last one month. On examination, he was found to have a small ulcer on his foot which had not healed despite applying local antibiotics for the last 10 days.

- What do you think the patient's primary problem is?
- What are the investigations you would like to order in this patient?
- What are the findings that you would expect in the above investigations? How will you interpret them?



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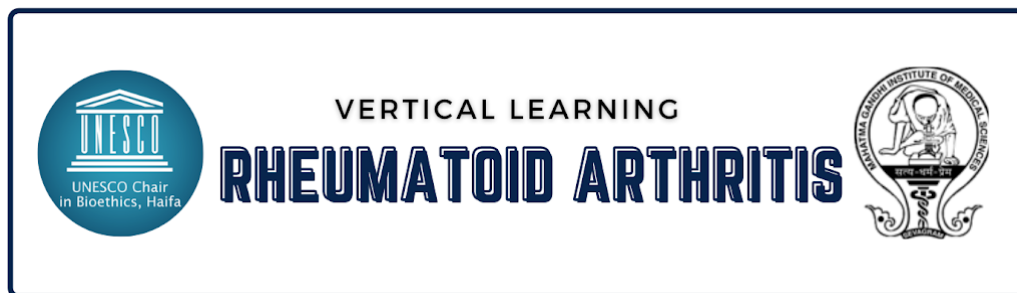
Vertical Learning sessions - Rheumatoid Arthritis

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Greetings!

The MGIMS Bioethics Unit, in an effort to promote Vertical Learning, has decided to take up topics which can be understood better if studied in a comprehensive manner and conduct sessions weekly or biweekly.

We've decided on **Rheumatoid Arthritis** as our first topic. It will be covered by Dr. Anshu ma'am (Pathology), Dr. Samir Yelvatkar sir (Clinical Medicine), and Dr. Kiran Wandile sir (Orthopaedics) on 15th, 16th and 17th August.

These sessions have been organised according to our Faculty's convenience and will be held at **5 pm on 15 and 16th August** and on **17th August at 4 pm**. They will be held via Google Meet. We request you to sign in using your MGIMS Email ID only.

We have prepared a pre-class questionnaire which we urge you to fill and submit (**Tap on the poster to open the form**). It will auto-generate the score and you will be able to see where you went wrong.


You may also access the questionnaire at: [QUESTIONNAIRE LINK](#)

We will also be sharing a post-class questionnaire so that you can assess your progress.

We hope that this activity is helpful for you, and we are open to suggestions regarding the same. If you wish to have a session on a particular topic, please let us know.

I would like to thank Dr. Nitin Gangane sir for encouraging us to take this up, and our Professors who have agreed to spend some of their valuable time for taking these classes.

Regards,
Shreya Namjoshi
Batch 2016



MGIMS BIOETHICS UNIT
BRINGS TO YOU

VERTICAL LEARNING

RHEUMATOID ARTHRITIS

SATURDAY
15TH AUGUST
5:00 PM
PATHOLOGY
DR. ANSHU

SUNDAY
16TH AUGUST
5:00 PM
MEDICINE
DR. SAMIR YELWATKAR

MONDAY
17TH AUGUST
4:00 PM
ORTHOPAEDICS
DR. KIRAN WANDILE

See you on Gmeet!

REGISTER BY FILLING THE PRE CLASS QUIZ
ATTEND THE EVENT
DON'T FORGET TO FILL THE POST-CLASS QUIZ TOO
ASSESS HOW MUCH YOU'VE LEARNT!

REGISTER HERE! OR SCAN HERE!

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