



# N.T.T.C.

## BULLETIN

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Theme of this Issue  
**Humanities in MBBS Curriculum**

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# **Humanities in MBBS Curriculum for Affective Domain Education**

**Dr. Santosh Kumar, Director-Professor & Head, Departments of Urology and Medical Education, JIPMER, Puducherry.**

## **I. What is affective domain education?**

Education is a process which brings about desirable changes in the learner's behaviour. Behaviour pertaining to thinking comes under cognitive domain, behaviour pertaining to feeling and talking falls under affective domain and behaviour pertaining to doing belongs to psychomotor domain. Hence, affective domain education is a process which brings about desirable changes in the learner's feeling and talking.

## **II. What are humanities?**

Humanities are the branches of learning concerned with human thought and relations as distinguished from the sciences.<sup>1</sup> In the context of medical education following six disciplines are included under humanities.<sup>2</sup>

1. Ethics
2. History
3. Law
4. Literature
5. Philosophy
6. Religion

## **III. Why should we include humanities in MBBS curriculum?**

The present MBBS curriculum to a large extent pertains to cognitive domain and to a small extent pertains to psychomotor domain. The affective domain is mostly left out in the formal MBBS curriculum. It has been suggested that formal study of humanities can help in the acquisition of knowledge and skills to practise medicine with respect, humility and true caring.<sup>3</sup>

## **IV. Ethics Education**

### **TRADITIONAL MODEL**

The objectives of traditional model are to provide knowledge and to develop cognitive skills to enable ethical decision making.<sup>4</sup> The content of traditional model includes ethical theories, moral principles, codes of medical ethics and various clinical topics. It is taught as a separate course in the first or the second year of medical school.<sup>4</sup> The traditional model uses trigger materials, group discussions and plenary presentations as teaching-learning methods.

### **ALTERNATIVE MODELS**

The additional objective of the alternative models includes shaping of attitudes, values and behaviour.<sup>4</sup> These models aim at undoing the "dehumanizing" effects of conventional medical education.<sup>5</sup> In these humanistic approaches, biopsychosocial model of disease is preferred over biophysical model of disease and longitudinal patient assignment is used for better understanding of patients' problems. Specific ethical interpersonal behavioural skills are also taught. Role playing, role modelling and case methods are used for teaching-learning. Observation and rating scales can be used for evaluation. Everyday ethics, student ethics and

macro-ethics are newer areas being explored.<sup>4</sup> It is suggested that medical ethics should be integrated throughout the course and should not be confined to a separate course alone.

## **V. History Education**

Medical history is considered an essential part of professional, intellectual and humanistic development of medical students.<sup>6</sup> The objectives of medical history education include appreciation of the fact that knowledge changes, realization that medicine is essentially a social enterprise, emphasizing the human dimension of doctor-patient relationship and understanding of conflicting world views.<sup>6</sup> Medical history can be taught as a separate course, as a part of humanities course, as a part of various medical subjects or as an elective.

## **VI. Legal Education**

The objectives of the study of jurisprudence (law, legal reasoning and the legal system) include practising medicine well, collaborating effectively with the legal system and functioning effectively in public domain.<sup>7</sup> Common topics include legal issues involved in the doctor-patient relationship (confidentiality, duty to disclose, duty to treat, duty to warn, informed consent, truth-telling), malpractice, decision making process, HIV and AIDS and legal rights of particular populations.<sup>7</sup> In the United States, most health law teaching in medical schools involves the participation of lawyers.<sup>7</sup>

## **VII. Literary Education**

Literature denotes writings whose value lies in beauty of form or emotional effect.<sup>8</sup> Literature includes fiction, poetry and drama. The objective of literary education is to facilitate acquisition of some skills and attitudes required to approach sick people and to be of help to them.<sup>9</sup> These skills and attitudes help students to approach patients with openness, curiosity and empathy and to understand the life situations that illness creates and complicates.<sup>9</sup> Other objectives include development of narrative skills and awareness of cultural, religious and social aspects of health and illness. Literature is recognised as a source of moral education in medicine.<sup>10</sup> There are three approaches to literary education. Ethical approach focuses on moral reflection, aesthetic approach emphasizes literary skills of reading, writing and interpretation and empathic approach aims to enhance the ability to understand experiences, feelings and values of other persons.<sup>9</sup> Teaching methods for literary education include the study of literature, its interpretation and discussion of interpretations, best carried out using small groups. Literary writing is another method of literary education and the writer can access unreachable knowledge and feelings.<sup>9</sup> In the United States, literary teaching is carried out jointly by physicians and literary scholars, mostly in the preclinical curriculum.<sup>9</sup> Earlier literary study focussed on the works of physician-authors and realist fiction about illness, but now it includes a wide range of literature and narratives including the patient history.<sup>9</sup>

## **VIII. Philosophical Education**

Philosophy means love of wisdom and its primary task is critical reflection.<sup>11</sup> The objectives of philosophical inquiry are to identify and examine assumptions, to broaden perspective and enlarge self-knowledge, to develop critical thinking skills, to foster tolerance and openness and scepticism about dogma and to cultivate empathy.<sup>11</sup> The topics used for teaching philosophy in medicine include concepts of health, disease, illness and disability, models of explanation, justification and decision making, honesty, truthfulness and trust, medicine's goals, codes and oaths, the doctor-patient relationship, voluntary action and capacity for self-determination, personhood, diminished capacity and quality of life, confidentiality and

privacy, research design, clinical trials, the investigator-subject relationship and current research guidelines.<sup>11</sup>

## **IX. Religious Education**

Studies have shown that 94% Americans believed in God and 43% attend religious services weekly.<sup>12</sup> There are three reasons for including religious studies in the medical curriculum. Religion is a source of meaning, religion is a source and framework for values and religion is an outstanding context for the appreciation of human diversity.<sup>12</sup> The objectives of religious studies in medical courses are fostering respect for the individuality of the patient, heightening awareness of the patient's and one's own beliefs, values and faith as resources for healing, addressing value-laden aspects more effectively and strengthening one's commitment to a person-centred medicine that emphasizes the care of the suffering person rather than the biology of disease.<sup>12</sup> Small group discussions and presentations are most appropriate teaching learning methods for religious studies. It can be undertaken as a separate course on the subject, as an integrated course with other subjects, as case studies and as an elective.<sup>12</sup> Readings for the course can include the positions of major world religions on various health related and medical issues such as abortion, euthanasia, transplantation and grief.<sup>12</sup> Topics for the course can be religion as a resource for the patient and the physician and collaboration between physicians and clergy in the care of patients and health promotion.<sup>12</sup>

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## **PROJECT REPORT:**

# **Improving listening activity and student's active participation in group discussion in Pharmacology lecture (theory) class in para clinical M.B.B.S. students using fish bowl (group dynamics)**

**Dr. R. Jayasree, Professor of Pharmacology, Aarupadai Veedu Medical College, Puducherry.**

## **INTRODUCTION:**

It is found that many students are not attentive and active during lecture classes. The objective of the project was to use fish bowl (group dynamics) technique to improve listening activity and active participation of students in theory lecture classes. The para clinical students (II MBBS) in Pharmacology department were the target subjects.

## **METHODS:**

Fish bowl (group dynamics) technique was used after the lecture class. Introduction to group dynamics (fish bowl) was given in the lecture class. Fish bowl (group dynamics) was conducted according to standard methodology. Two groups of 10 students each were used as per the following strategy:

- |          |   |  |
|----------|---|--|
| Group I  | - | 10 students (inner circle)<br>(group discussion) |
| Group II | - | 10 students (outer circle)<br>(observation)      |

Later Group II students had group discussion and Group I students were observers. The two group discussions were followed by plenary presentation. One student is fish for each of the ten students and report about their active participation in group discussion to the staff in-charge after standing and watching the fish. Each session lasted 1 hour. One session was conducted every 15 days. Total of six sessions were conducted over 3 months.

In 6 classes (6 hrs.) after lecture class, the topics given in pharmacology for group dynamics are presented in Tables 1 and 2

**Table I**

Group I – for discussion (10 students)  
Subject – Pharmacology  
Discussion: Time – 20 minutes, Presentation – 10 minutes, and  
Total Time = 30 minutes

1. Common drugs causing teratogenicity
2. Drugs used in glaucoma
3. Shared toxicities of aminoglycosides
4. Oral contraceptives
5. Prophylaxis and treatment of migraine
6. Multi-drug regimen in tuberculosis

One person from group presented in plenary.

**Table II**

Group II – (10 students) were observers  
Topic for discussion:

1. Drugs of addiction
2. New drug delivery systems

3. Rational use of antibiotics
4. Newer NSAIDS
5. Oral hypoglycaemic agents
6. Newer antihistamines

Group I acted as observers: Time: 20 minutes

Plenary presentation: Time: 10 minutes

Total Time: 30 minutes, for each day / group

Evaluation was done by observation and by plenary presentation of students.

### **RESULTS:**

Evaluation and feedback showed that group dynamics has improved the following:

1. Students' active listening in theory class.
2. Students interaction

Presentation by groups showed:

- a) Active participation
- b) Reduced stage fear
- c) Highlighting by topics dealt in lecture class

### **DISCUSSION AND CONCLUSIONS:**

The study has shown that group dynamics (fish bowl) technique improved active listening and active participation in theory lecture classes. Group presentations showed active participation, reduced stage fear and highlighting of topics dealt in lecture classes. This technique can help improve student performance during oral examination.

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**Harmonious development of  
the head,  
hand  
and heart  
is the mark of a model man.**

**Swami Vivekananda**

# The “Battle of the Bulge” in the Liver

By

Dr. Usha Anand, Professor of Biochemistry, PSG Institute of Medical Sciences & Research, Coimbatore.

Once upon a time inside the hepatocyte,  
The enzymes of glycogenesis wanted to show their might;  
They imprisoned all the glucose molecules that came their way,  
They entangled them in chains, inside the cell they had to stay.

The enzymes of glycogenolysis looked on for sometime  
The situation seemed to be getting out of hand;  
The cell were loaded with glycogen there was hardly any space,  
Glycogen synthase and his friends seemed to be running a mad race.

‘We’ll teach these guys a lesson’, they said to themselves,  
‘We’ll match them with glycogenolytic spells;  
Let them make glycogen as fast as they can,  
We’ll break it down, we’ll fight them man for man’.

So the two armies went about their private wars,  
Ravaging and plundering and leaving deep scars;  
As a last resort the hepatocyte sent out a plea,  
‘Is there anyone who can control this maddening spree?’

A molecule called cyclic AMP then raised up her hand,  
‘I’ll take charge’, she said, ‘just give me a command;  
Just release adenylate cyclase, let it act on ATP,  
Once I’m formed, I can work wonders for a small fee’.

She stood then like a sentinel in their very midst,  
That all hormones act through her she did insist;  
‘All hormones’, she said, ‘will send in their message from outside,  
The further course of action is for me to decide’.

So whether it was glucagons or the little epinephrine,  
Or the lone crusader against hypoglycemia the powerful insulin;  
They were stopped at the gates they could do nothing on their own,  
They had to act through cAMP, the seeds of regulation were sown.

When blood glucose levels were low glucagon was released,  
Cyclic AMP levels rose, glycogenolysis increased;  
Through a cascade of reactions phosphorylase activated,  
At the same time the pathway of glycogenesis abated.

When there was plenty of glucose coming in from the intestine,  
And blood glucose levels threatening to rise in a short time;  
The second messenger levels fell to activate the synthase,  
Glycogen formation was supported at a high pace.

By responding in opposite directions to single metabolite,  
The two pathways were regulated, there was no longer any fight;  
Glycogenesis and glycogenolysis were brought under full control,  
The virtues of peaceful coexistence they now extol.

## **EDUCATIONAL PROJECTS INITIATED DURING 54<sup>th</sup> NATIONAL COURSE**

The 54<sup>th</sup> National Course was held at JIPMER, Puducherry from 19<sup>th</sup> to 28<sup>th</sup> February 2007. The following projects were presented by the participants and approved. We wish them speedy execution of the projects and look forward to receiving the final report.

**1. Structured undergraduate teaching of Biochemistry using innovative teaching techniques**

Col Parduman Singh, Professor and Head, Department of Biochemistry, Armed Forces Medical College, Pune 411040

**2. Role play as a teaching learning method in imparting communication skills to III MBBS students**

Lt Col K.Shanmuganandan, Reader, Department of Medicine Armed Forces Medical College, Pune

**3. Use of simulators for the development of surgical skills in undergraduate students in final year MBBS.**

Dr. Bhupendra Kumar Mehra, Assoc. Professor in General Surgery, Mahatma Gandhi Institute of Medical Sciences, Sewagram

**4. Use of computer aided audio-visual aids for explanation of mechanism of action of drugs to II year MBBS students.**

Dr. Swanand S. Pathak, Lecturer in Pharmacology, Mahatma Gandhi Institute of Medical Sciences, Sewagram

**5. Assessment of quality of MCQ used in selection of specialty tutors in Physiology by GPSC.**

Dr. Asim Das, Profesor & Head, Dept. Of Physiology, M.P. Shah Medical College, Jamnagar

**6. Group discussion in improving the learning outcome of the slow learners.**

Dr. M.L. Harendra Kumar, Professor & HOD of Pathology, Sri Devaraj Urs Medical College, Kolar

**7. Time Management in Improving Learning outcome for Slow Learners**

Dr. Nagesh Raju, G, Assoc. Professor in Pharmacology, Sri Deveraj Urs Medical College, Kolar

**8. Formative evaluation is the form of spotter for I MBBS students by using computers.**

Dr. Varsha Mokhasi, Professor of Anatomy, M.S. Ramaiah Medical College, Bangalore.

**9. Effectiveness of a simulator for teaching MBBS students in establishment of I.V. access.**

Dr. Y.V. Narayana Swamy, Asst. Professor of Surgery, M.S. Ramaiah Medical College, Bangalore.

**10. Effective preparing written lesson plan before the lecture classes in Community Medicine.**

Dr. Sajith Kumar, S., Asst. Professor in Community Medicine, Medical College, Trivandrum

**11. Effect of more number of bed side clinics for slow learners in Surgery.**

Dr. Premlal, A.P., Lecturer in Surgery, Medical College, Trivandrum

**12. The use of problem solving exercises to improve the learning outcome of undergraduate Biochemistry students.**

Dr. Usha Anand, Professor of Biochemistry, PSG Institute of Medical Sciences & Research, Coimbatore.

**13. Item Analysis of the MCQ**

Dr. R. Nagashree, Assoc. Professor, PSG Institute of Medical Science & Research, Coimbatore

**14. SPMP for teaching in 9<sup>th</sup> Semester students in Orthopedics**

Dr. Krishna Gopal, Asst. Professor in Orthopedics, Mahatma Gandhi Medical College & Research, Pillaiyarkuppam, Puducherry

**15. To prepare a proper audio visual (t/l media) on “ARI (Acute Respiratory Infection) control programme”**

Dr. D. Gunasekaran, Asst. Professor Dept. of Paediatrics, Mahatma Gandhi Medical College, Pillayarkuppam, Puducherry.

**16. Objective Structured Practical Examination based teaching (OSPE) in a group of learners during Internal Assessment.**

Dr. Syed Basheer Ahamed Lecturer, Department of Prosthodontics, Mahatma Gandhi Post graduate Institute of Dental Sciences, Puducherry.

**17. Pre & Post tests in Clinical postings for Final Year B.D.S. students in Department of Oral & Maxillofacial Surgery – A formative Evaluation.**

Dr. M.R. Ramesh Babu, Lecturer, Dept. of Oral & Maxillofacial Surgery, Mahatma Gandhi Postgraduate Instt. of Dental Sciences, Puducherry

**18. Objective Structured Examination (OSCE) based teaching for a group of problem learners in Ophthalmology**

Dr. Dinu Kumar Arthur, Associate Professor, Ophthalmology, Aarupadai Veedu Medical College, Puducherry

**19. Role of the multiple choice question in the evaluation in learning process in Microbiology**

Dr. Ajoy Kumar Verma, Asst. Prof. in Microbiology, JIPMER, Puducherry

**20. Facilitating learning in low achievers by giving assignment in must know areas of Pharmacology**

Dr. Sandhiya, Senior Resident in Pharmacology, JIPMER, Puducherry

**21. Development of a Computer Assisted Learning module to aid undergraduate students in identifying and learning the uses of common surgical instruments.**

Dr. Nanda Kishore M, Assistant Professor, Department of Surgery JIPMER, Puducherry

**22. Formulation of specific learning objectives for students during internship in department of Pediatrics.**

Dr.P.Sriram, Assistant professor of Pediatrics, JIPMER, Puducherry

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