



# Bulletin of NTTC

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## Editorial:

# USHERING IN CHANGE IN MEDICAL EDUCATION - EVOLUTION OR REVOLUTION?

***K.R. Sethuraman***

## **Introduction**

The M.C.I. Regulations of 1997 on undergraduate medical education has been a major event with wide ranging influence on the curriculum. However, many medical educators have conveyed to NTTC the need for further refinement. This article is based on their valuable inputs and suggestions.

Educators have primarily three major responsibilities. They are -

1. Preservation and transmission of existing human knowledge and skills.
2. Creation of new knowledge and skills.
3. Ushering in relevant changes that enhance quality of human life.

Globally, medical education has done well in (1) and (2), but has been rather weak in (3).

## **Major Reasons for Stasis**

“Change is Life; Stasis is Death.” (M. Gorbachev). Machiavalli has said, “It is better to manage change than inertia.” However, most educationists believe that “It is easier to move a cemetery than change curriculum.” Why is it so?

1. **Inertia** of Machiavallian proportions is fostered by -
  - i) Reluctance - “Why should anything change when excellent products (like us!) have been produced by the existing system?”
  - ii) Benign neglect of several areas of knowledge and skills that do not fit into the existing disciplines, e.g., communication skills.
2. **Tunnel Vision** - Medical educationists do not perceive the sweeping reforms and changes in the other fields like engineering, management, agriculture, etc. The U.G.C. (1973) had recommended four major changes:
  - i) Enhance continuous Internal Assessment (and reduce the importance of a single final examination).
  - ii) Devise National Examination to assure quality of the product throughout the nation.
  - iii) Adopt Grading System for assessment.

- iv) Create a pre- and post-validated question bank to ensure quality of the assessment tools.

I.I.T.s have incorporated these for three decades while we are still groping in the dark.

## **3. Fuzzy Curricular Goal**

We proclaim to produce an MBBS graduate who is capable of delivering preventive, promotive, curative and rehabilitative primary (first-contact) health care. But majority of our graduates are illequipped to be an effective or a successful ‘generalist’. Moreover, they have insecurity and feelings of inferiority (“I am just an MBBS graduate”). Most of the 18,000 graduating every year are desperate to specialize but only about 40% can do so. The remainder are left to fend for themselves. Compare this with the pride, job opportunities and fidelity to their discipline among engineering graduates.

## **4. Ineffective Problem-Knowledge Coupling**

Problem-knowledge coupling is very important in higher education as all professionals are basically problem-solvers (just log into [www.pkc.org](http://www.pkc.org) and see for yourself).

The MCI 1997 regulations has earmarked 6<sup>th</sup> and 7<sup>th</sup> semester (2-4 pm) for ‘clinical demonstrations’. This huge curricular time can be effectively used to impart problem solving skills to our students. How many medical colleges have done it in 1999-2000 when the first batch entered 6<sup>th</sup> and 7<sup>th</sup> semester?

## **5. Examination-Muddle** resulting from:

- i) Obsession with secrecy - no pre-validation or post-validation is done in most examinations.
- ii) Fear of corruption - while our counterparts in other professions are able to offer credit based curricula with 50% weightage to internal assessment, we shudder to think of it. Why?
- iii) Fatalistic Acceptance of Unreliable Tools: The wide variations in examiner-bias, case-difficulty and the overall subjectivity of global assessment make most clinical examinations no better than ‘Russian Roulette’. We tend to accept it without a second thought and counsel our students. “Clinics are like one-day cricket. You may score a century or you may score a duck. It is OK.”

Can we not press for a better system than what we had to go through when we were students?

## **The Way Forward - Some Suggestions**

1. Have a clear goal for medical education. What is our goal for undergraduate medical education? Is it feasible, relevant, pragmatic

- and acceptable to student community as well as society at large?
- Should an MBBS graduate be ready to function as a competent family doctor (with pride and not an apology)?
  - Can the same graduate be ready to take up specialisation in clinical and non-clinical subjects?
  - Like Engineering education which offers several streams with only one year of common foundation, should we offer several streams in MBBS education?
- Create a system of training by which quality education is imparted. Adopt ISO-9002 norms for services and apply it to medical education in toto. If quality assurance of a transport service or a hotel is important to the society, then is it not even more important that medical education must conform to ISO-9002 norms?
  - Galvanise medical educators by removing distractions (like unregulated private practice) and diversions (like excessive research at the cost of teaching students). Ensure that educators are available from 8-4 to teach in all disciplines.
  - Reform examination system to make it relevant, valid, reliable, unbiased, transparent, accountable and fair. Enhance the quality and weightage of internal assessment. Consider national level standards for summative examinations.

- Make Internship training more meaningful and effective. Remove the stress of PG entrance examination so that the focus will revert to learning practical problem solving skills.

### Conclusions

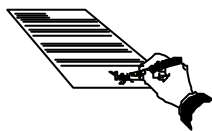
A zero-based approach is needed to totally revamp the medical education in India. We have a duty to ensure that competent family practice survives in the 21<sup>st</sup> century.

Back to the question raised in the title - Change through Evolution or Revolution? If we are pro-active and responsive, it will be a process of meaningful evolution - if not societal, demands may force a revolution at not too distant a future.

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### Project Report - 1



## M.C.Q. AS A METHOD OF EVALUATION IN ANATOMY AND ITS COMPARISON WITH OTHER METHODS

**Suchitra A. Vaidya**

### Introduction

A project was taken up to study 'MCQ as a method of evaluation in Anatomy and its comparison with other methods of evaluation.'

### Materials and Methods

For the first MBBS students of the academic year 1998-99, four internal assessments and a terminal examination were conducted. Student

performance for theory, practical and MCQ was compared. Internal assessment was conducted after the completion of a part / region in Anatomy. Terminal examination was conducted at the end of I semester. An average of 195 students took the examinations. Each internal assessment was for 50 marks which was split as MCQ - 10 marks, theory - 15 and practical - 25. In the terminal examination, MCQ was of 15 marks, theory for 45 marks and practical out of 60 marks. Percentages were calculated for each examination and were compared. Statistical analysis was done.

### Results

In all the five tests conducted, mean MCQ scores were higher than the scores in theory or practical (Table 1). Mean MCQ score was equal to the scores of the theory and approximated with practical scores in IV internal assessment. Mean MCQ score was highest in III test (81.4).

Statistical analysis revealed that there is significant difference between the MCQ scores and theory or practical scores in four of five tests (Table

2). For the fourth internal assessment, there was no difference in the mean scores between the theory and MCQ and the difference in the scores between the MCQ and practical was not significant.

#### Conclusion

In the course of study, we found that:

1. Students fetched higher scores with MCQ than with theory or practical, which was statistically significant.
2. Results were consistent, showing that it was a reliable method of evaluation.
3. Objective evaluation could be done within a short time.
4. Painstaking preparation of MCQs helps in assessing higher levels of cognitive domain.

However, the following drawbacks were observed:

1. MCQs test recognition, the simplest cognition.
2. Copying seems easier with MCQ than with other modes of examinations.
3. Setting the question paper was more time consuming and tedious.
4. Teething problems like not having post-validated question bank.

To summarise, the study suggests that MCQ is not comparable with either theory or practical examinations.

Table 1

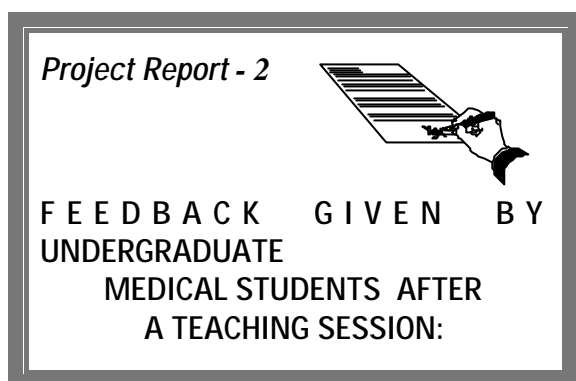
Mean Scores and Standard Deviations for MCQ, Theory and Practical Examinations in the Five Tests Conducted

	No. of Students	MCQ		Theory		Practical	
		Mean	SD	Mean	SD	Mean	SD
1 <sup>st</sup> test	196	66	17.1	47	15.8	55.1	12.2
2 <sup>nd</sup> test	197	66.1	12.2	47.8	15	53.4	11.4
3 <sup>rd</sup> test	194	81.4	13.6	67.1	20.2	65	30.4
4 <sup>th</sup> test	197	68	10.8	68	14.7	66.4	9.2
Terminal	196	63.4	13.3	46.9	15.2	51.1	10.2

Table 2

Comparison of MCQ with Theory or Practical Examinations

		SE	Z	'p' Value	Inference
1 <sup>st</sup> Test	MCQ & Theory	1.66	11.44	< 0.05	Significant
	MCQ & Practical	1.50	7.33	< 0.05	Significant
2 <sup>nd</sup> Test	MCQ & Theory	1.38	13.26	< 0.01	Significant
	MCQ & Practical	1.19	10.67	< 0.05	Significant
3 <sup>rd</sup> Test	MCQ & Theory	1.75	8.17	< 0.01	Significant
	MCQ & Practical	2.38	6.89	< 0.01	Significant
4 <sup>th</sup> Test	MCQ & Theory	-1.01	-1.58	-	Means are same
	MCQ & Practical			> 0.05	Not significant
Terminal	MCQ & Theory	1.44	11.45	< 0.05	Significant
	MCQ & Practical	1.19	10.34	< 0.05	Significant



**Panna Lal, G. Srinivas,  
Gautam Roy, Akshya Mishra**

### **Introduction**

The practice of taking feedback from medical undergraduate students has been an important tool used for evaluation of a teaching programme.<sup>1-4</sup> The purposes of taking feedback may be to: (1) bring real improvement in subsequent sessions, (2) appreciate teacher's own efforts. However, feedback given by undergraduate medical students has been debatable and sometimes considered weightless during informal talks. Therefore, this study was undertaken with the objectives (1) to know medical undergraduate students' level of understanding of feedback, (2) to seek their opinion about utility of feedback.

### **Material and Methods**

A batch of 72 medical undergraduate students who were going to appear at final University examination within next two months were selected for the study. The reason for selecting the batch was that this batch might have given feedback a number of times by now. The timing of survey was chosen in such a way that it was at the end of the teaching programme in the subject and the students had no cultural or academic preoccupations.

Thus survey of all students present in the class on 10<sup>th</sup> September 1998 was done using a pre-designed proforma. This proforma contained mostly open ended questions on various aspects of feedback, e.g., frequency of feedback they had given, reasons for not giving genuine opinion, whether the practice of feedback to be stopped and reasons thereof.

During the survey, students were made to sit apart to avoid mutual exchange of views. All the questions were explained in advance and the anonymity was maintained to ensure their frank opinion.

Fifty-nine students present in the class were

surveyed, but final analysis of 58 (40 boys and 18 girls) students responses was done. One student was excluded because of incomplete proforma.

### **Observations**

The study subjects had given feedback at least 15 times, maximum being 10 in the Dept. of P & SM followed by Anatomy (2), Pathology, Pharmacology, Surgery and Physiology (1 each). Most of the students (81.1%) accepted that they had given genuine opinion always or most of the times. Girls seemed to be more serious in this regard (Table 1).

More than three-fourth of the students (75.8%) did not notice any improvement in subsequent sessions following feedback. Possibly because of that 82.8% students were in favour of stopping the feedback (Table 2). Similar number of students (82.7%) also felt that most of the students generally don't give genuine opinion in the feedback. The other reasons given were lack of interest / no notice-able change in subsequent sessions (77.6%). Fear of being decoded/identified through handwriting, poor judgmental power and feeling fun were mentioned (Table 3).

The study group was also asked to enumerate various points to be covered in the feedback proforma for any particular session in general. Less than 25% of them showed agreement with the expectations of investigators on major points such as clarity of contents, sufficiency of time, facilitating and hindrance factors and need of additional teaching aids (Table 4). Few students (17.2%) accepted that they had been writing obnoxious comments while giving feedback (Table 2).

### **Discussion**

Of course, the justification of any teaching method largely depends upon genuine opinion of the students. However, it is very difficult to ensure genuineness of the student's opinion. This is evident from the observation that more than 80% students in the present study claimed to have given genuine opinion always or most of the times but less than 25% of them could enumerate various items to be covered in feedback proforma and majority of the students (>75%) do not understand what to be included in feedback as they wrote non-specific statements. This clearly indicates that if students are not aware of these items, it is impossible to get acceptable figures for genuine opinion which might help to bring a positive change in subsequent teaching sessions. The doubt is further strengthened with the observation that 52% of study subjects opined that majority of the students do not give genuine opinion for the reasons like lack of interest in feedback, finding no change in subsequent sessions and fear of being decoded or identified

through handwriting as pointed out by the study subjects.

Poor judgmental power as asserted by the study subjects may also be the important factor responsible for not being genuine. The lack of interest may be the result of poor understanding of questions or being fed up of frequent feedbacks. However, we did not explore it. Writing of obnoxious comments and feeling fun while giving feedback also reflect loss of interest in feedback.

Many times students fail to give specific response due to ambiguous question, e.g., What is overall assessment of the class? How was the coverage of contents? Whether objectives are clear, as used by some of the investigators.<sup>1,2</sup> These type of questions are difficult to answer for an undergraduate student. Therefore, they lose interest in giving feedback and also give multiple variants of the single response which lead to loss of uniformity of the opinions. Thus, feedback may not serve the actual purpose of improving subsequent sessions. This type of ambiguity can be avoided by proper planning in advance and explaining the various points before the feedback is collected. In some of the studies, authors have made efforts in this direction and achieved good results.<sup>3</sup>

One may feel happy having remarks like "You speak good English", "You are well dressed", "Have put good perfumes", from the students, but these remarks carry no meaning as far as imparting of knowledge is concerned. Obnoxious comments provides serious thought for improving oneself or stopping to collect feedback, as desired by 82.3% of study subjects. The questions seeking information about the personal styles and teacher's own personality should not be the focus of feedback.

The reliability of feedback can be enhanced further by avoiding frequent feedbacks and providing structured pretested proforma with specific questions. Incorporation of the suggestions in subsequent sessions is necessary not only to bring some positive change but also encourage students to maintain their interest in feedback.

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Table 1  
Genuine opinion given by study subjects during feedback

Frequency of genuine opinion	Males (N = 40)	Females (N = 18)	Combined (N = 58)
Always	20 (50.0)	13 (72.2)	33 (56.9)
Most of the times	10 (25.0)	4 (22.2)	14 (24.2)
<50% of the times	10 (25.0)	1 (5.6)	11 (18.9)

Figures in parentheses indicate percentages.

Table 2  
Student's Perception of Change Following Feedback

Response		Males (N = 40)	Females (N = 18)	Combined (N = 58)
Noticed change in subsequent sessions	Yes	9 (22.5)	5 (27.8)	14 (24.2)
	No	31 (77.5)	13 (72.2)	44 (75.8)
Feedback be continued	Yes	8 (20.0)	2 (11.1)	10 (17.2)
	No	32 (80.0)	16 (88.9)	48 (82.8)
Obnoxious language used in feedback	Yes	7 (17.5)	3 (16.7)	10 (17.2)
	No	33 (82.5)	15 (83.3)	48 (82.8)

Table 3  
Reasons for Not Giving Genuine Opinion

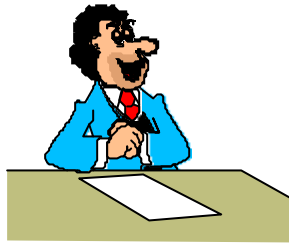
Reasons*	Frequency	
	No.	%
Not interested in feedback.	30	51.7
No improvement following feedback.	14	24.2
Fear of being decoded/identified.	5	8.6
Poor judgemental power	3	5.2
Feedback given only for fun	2	3.5

3 students did not respond to the question.  
\* Responses not mutually exclusive.

Table 4  
Items to be Covered in Feedback as Enumerated by Study Subjects

Items*	No.	%
Whether information adequate.	14	24.2
Suggestions to improve.	13	22.4
Clarity of contents.	13	22.2
Facilitating factors.	9	15.5
Hindering factors.	9	15.5
Whether time sufficient.	8	13.7
Teaching interesting or not.	7	12.1
Whether additional aid required.	2	3.5
Objectives met.	2	3.5
Whether student been able to follow.	1	1.7

\* Responses not mutually exclusive.



## ABSTRACTS OF SCIENTIFIC PAPERS PRESENTED AT

MECON - 2001  
MARCH 10-11, 2001

### **Newer Learning Resource Media for the Medical Students**

*Kumar PA  
Department of Anatomy  
PSG Institute of Medical Sciences and Research  
Coimbatore, Tamil Nadu.*

Cross sectional pictures of the body, obtained by recent advances in imaging sciences provide an excellent source of learning material. CT scan pictures could be enlarged and arranged in well illuminated view boxes. These could then be illustrated and labeled to provide an effective self-learning module for both the pre-clinical and clinical phases of medical training. One such learning module developed and used in this department will be presented.

### **Slide Presentations at Scientific Meetings - Are They Perfect?**

*Vimal Kumar Govindan, Appala Raju, Sujaya Menon  
Dept. of Surgery  
PSG Institute of Medical Sciences and Research  
Coimbatore, Tamil Nadu.*

Nearly all scientific meetings use slide presentations. We conducted a study where slides presented at a national conference were assessed for legibility, simplicity, accuracy and absence of distracting elements. The criteria used were that of standard recommendations. Each speaker was given an index of perfection which was the percentage of perfect slides presented. 62% of speakers had less than 70 as index of perfection. This underscores the need for training of the medical profession in presentations.

### **OSCE - Is it a Reliable Objective Method of Clinical Performance Evaluation?**

*Ghotekar LH, Dutta TK, Sethuraman KR  
Dept. of Medicine, JIPMER, Pondicherry*

Objective structured clinical examination was designed to test the bedside clinical competence, where pre-determined questions are made on the competencies to be tested. Checklists incorporating important evaluable skills are prepared. In Medicine Department of JIPMER, we are using this methodology for evaluating students' performance at the end of their clinical posting of each system. Here we are presenting our experience of assessment of 4<sup>th</sup> and 5<sup>th</sup> semester students performance at the end of

their first posting of clinical examination of respiratory system.

Patient and Examiner dependent variables were tried to reduce to a minimum. Four batches of students comprising of 10-15 students were examined at different points of time by different examiners with one of the authors being the constant variable. The results will be discussed during the presentation.

### **Role of Negative Marking in Evaluation of MCQs: Should Guess Work be Penalized or Not?**

*Vaidya SA, Chimmalgi M  
Dept. of Anatomy,  
B.J. Medical College, Pune.*

A study was conducted to assess the effects of negative marking on MCQs. A batch of 195 students solved two sets of MCQs, one with negative marking and the other without. It was found that negative marking discouraged 'guessing', improved discrimination and gave correct assessment of student's knowledge, acting as a better feedback tool for T-L Methods. The only disadvantage being adverse effect of anxiety on student's performance. Thus the purpose of examination will decide the marking system of MCQs.

### **Continuous Internal Assessment for P.G. Residents - Need to Ensure Adequate Training**

*Srinivasan K, Smile SR, Jagdish S, et al.  
Dept. of Surgery, JIPMER, Pondicherry*

Most institutes do not have a system of continuous internal assessment of Postgraduates. Evaluation of the Postgraduates is left to the final University examination, which may not be adequate. A well established form of continuous internal assessment format will be presented, highlighting the methodology, advantages, applicability and acceptance to both the trained and teachers.

### **Evaluation of Skills for Management of Normal Labour**

*Papa Dasari, Asha Oumachigui, Vishnu Bhat B.  
Depts. of Obst & Gynaecology & Paediatrics,  
JIPMER, Pondicherry*

Fifty-seven undergraduate students in the final professional year underwent training for a period of four weeks in order to acquire skills in managing

normal labour. Each student was assessed with the help of a pre-determined objective structured checklist for various components of normal labour at the end of four weeks.

Position and effacement of cervix could not be ascertained by 30%. Forty-five per cent experienced difficulty in recognising the ischial spines and measuring interischial diameter. As many as 51% of students could not make out the position of presenting part by palpating the posterior fontanelle. However, all the students could plot a partogram correctly when findings were given.

Ninety-eight per cent were skilled in conducting the delivery of the head accurately. Seventeen and a half per cent did not inspect placenta and membranes after expulsion. All of them could manage the 4<sup>th</sup> stage of labour appropriately. As to the care of the newborn, all of them could perform nasal and oral suction but 15.8% had difficulty in assessing the Apgar score correctly. On assessing the skills in newborn resuscitation with the help of a manikin, 45.6% could not demonstrate the steps of intubation and external cardiac massage correctly.

More emphasis should be given by the trainers in demonstrating the skills for pelvic assessment and position of the presenting part and the help of a manikin would be useful. Inspection of the placenta and membranes needs reinforcement. The technique of newborn resuscitation needs to be practised more often on a manikin.

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### **Introducing Concepts and Principles of Palliative Care to Medical Students**

*Sairu Philip, Radhakrishnan C, Rajan K  
Department of Community Medicine  
T.D. Medical College, Alappuzha.*

The significance of "Palliative Cancer Care" has increased in India recently consequent to the rise in the incidence of cancer and thereby the number of terminally ill cancer patients. "Palliative Care" is patient centered and it helps the patients to achieve and maintain their physical, psychological, social and spiritual capabilities to the maximum though there could be limitations due to progress of the disease process. Therefore, palliative care is essentially a rehabilitative service and hence tertiary prevention.

The goal of medical education is to mould 'basic physicians' who will practise holistic medicine encompassing preventive, promotive, curative and rehabilitative aspects of common diseases. He is not only expected to possess knowledge of diseases, but has also to build up the right attitude towards the society and skills in interpersonal relationship.

Under the above circumstances, it is proposed that the students may be introduced to the concepts

of palliative care during their posting in community medicine. A visit to the pain clinic may be organised in their 7<sup>th</sup> semester posting in community medicine. They may be given opportunity to be observers in the pain clinic for a minimum of 5 days. Lecture discussions on symptomatic management of pain, role-play on "Breaking Bad News", "Collusion", etc., may be made use of to impart the desired teaching/learning experience.

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### **A Workshop on Research Methodology and Evidence Based Medicine for Teaching Self-directed Learning Skills to P.G. Students**

*Goudar SS, Patil CS  
Dept. of Microbiology  
J.N. Medical College, Belgaum.*

Conducting research and writing dissertation is a pre-requisite for obtaining postgraduate qualification. Lack of interest among faculty supervisors, absence of systematic assessment, and inadequacy of skills in students for undertaking the exercise are major contributing factors for decline in standards. We have addressed the last issue.

Two batches of 21 Postgraduate students admitted to J.N. Medical College, Belgaum for the academic year 2000-01 attended a 5-day intensive workshop. Workshop goal was to teach self-directed learning skills. Specific objectives included: (a) developing a research proposal in the health sciences, and (b) understanding the principles of practising Evidence Based Medicine (EBM).

Instructional methods consisted interactive lectures, small and large group activities and demonstrations. The participants worked in groups through the workshop and presented proposals using Power Point. They also e-mailed the protocol as Word document. The program evaluation was done using a structured questionnaire.

Participants rated most activities highly, barring the statistics session. They unanimously opined that every postgraduate should be trained through such workshops and felt that attention be paid to teaching these skills effectively during undergraduate medical education.

Training programs aimed at inculcating principles of self-directed learning and life-long learning in students must be a mandatory component of postgraduate medical education.

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### **What Qualities Doctors Expect in Their Doctors?**

*Santosh Kumar  
Dept. of Urology  
JIPMER, Pondicherry*



Twenty-five doctors belonging to different specialities were asked to mention qualities they considered most desirable while choosing their doctors. Twenty-four doctors responded. A total of one hundred and forty-seven responses were obtained. These responses were analysed and grouped into pedagogically meaningful groups to enable their promotion during the MBBS course.

### **Physician Heal Thyself**

*Aswini Kumar A.  
Machilipatnam, A.P.*

Why this adage. Probably because the physician who takes care of the health of people rarely take care of his health. It is known that physician work more, takes less vacation and are often under stress and strain. A survey was made in four conferences, mostly attended by general practitioners to know about their health habits. Two hundred doctors participated. The survey revealed that 50% do not exercise, 60% not vaccinated against Hepatitis-B, 25% smoke, 20% are over-weight, 10% take alcohol. Doctors need to take care of their health by good health habits.

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### **Qualitative Evaluation of Interns Training at JIPMER, Pondicherry**

*Seshu Babu, G.  
Dept. of P & SM, JIPMER, Pondicherry.*

#### Aim of the study:

To appraise the CHS training at JIPMER.

Long association with Interns in different departments provided an opportunity in knowing the strengths and weaknesses of the on-going CHS training at JIPMER. Obvious deficiencies observed in the management of patients with simple and common ailments, prompted to undertake the study.

#### Methodology:

Focus group discussion and individual structured and impromptu interviews.

#### Results:

Shortfall of 40% in acquiring skills (clinical and patient management). Majority of Units (subjects) acquire 20% skills by the end of academic training. Another 40% of skills were acquired during the internship period.

#### Discussion:

I Time management:

- a) Arrange alternative to collection of investigation reports.
- b) Find solutions to decongest OPD in major departments to enable proper examination of patients.
- c) Deputing routine and mechanical works to

appropriate health care workers.

II Active teaching:

- a) Allow active participation of interns during ward rounds.
- b) Practical training sessions as a rule than exception.
- c) Focus on intern also in discussions, treatment planning sessions.

III HRD:

- a) Scientific procedures to be followed in posting to avoid excess or deficient number of interns at any time.
- b) Recognise the contribution of interns.

Suggestion: Post-training evaluation.

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### **Clinical Clerkship in Surgery - the JIPMER Experience**

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Formal bedside case discussions do little to prepare a medical undergraduate for day to day problems in surgical practice. The introduction of a clinical clerkship posting for a period of 15 days in the pre-final year was intended to answer this problem. The students accompany the surgical unit to the out-patient, wards, emergency and operating theatre and acquire skills as per a pre-formed list of expected tasks. A daily evaluation and final written feedback is got from the students.

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### **First Aid Training Programme for Undergraduates**

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Teaching First Aid to undergraduate medical students has long been a neglected aspect of the curriculum. With this in mind, a First Aid Programme was started in our Institute for undergraduates. The schedule is spread over two weeks and is coordinated with the departments of Anaesthesiology, Medicine, Paediatrics and Nursing. A feedback is taken from the students regarding the usefulness or otherwise of each session, and constructive criticisms are taken note of.

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### **Training of Undergraduate Students in Neonatal Resuscitation**

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Sixty final year MBBS students were trained in Neonatal Resuscitation using manikins based on 'Neonatal Advanced Life Support' (NALS) programme. The participants were administered a 20-point pre-test. This was followed by lecture, demonstration, hands-on experience on manikins

and a post-test.

The mean pre-test score was  $10.6 \pm 3.2$  which significantly increased to  $18.2 \pm 2.12$  in the post-test. The students felt that the training was very useful, appropriate in context and duration. They suggested that reinforcement through real life experience may be given to them in the delivery room.

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### **Problem Solving for Better Health (PSBH) Programme for Medical Students - The Alappuzha Experience**

*Sairu Philip, Manjula VD, Aswathi S.  
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T.D. Medical College, Alappuzha, Kerala.*

The MCI regulations on Graduate Medical Education 1997 has emphasized the importance of community based and problem oriented medical education. The challenge of Community Medicine Departments lies in utilising the increased teaching/learning hours effectively such that the undergraduates acquire skills to function as community and first level physicians.

Problem Solving for Better Health (PSBH) was introduced to medical students in Alappuzha by Health Action by People (HAP), Thiruvananthapuram. It was a programme to provide students with a new learning experience through an intensely participatory process. A two-day workshop was conducted for 106 students during their third semester. Lectures by resource persons were followed by group discussions. Students were encouraged to identify problems. At the end of the workshop, 96 protocols were submitted based on these problems. From this, 33 feasible projects were chosen. Data was collected from the hospital and community during fourth semester practical posting in Community Medicine. Projects were presented in the department during the fifth semester posting. A session was organised to present the 33 projects to the resource persons from HAP.

Feedback from students revealed that majority of students learnt how to write a protocol, review literature and prepare a project report. Difficulties encountered by students were uninterested peers in the group, inadequate time and funds. PSBH process enabled the students to get sensitised to community health problems, dynamics of group work and gave them a chance for active learning.

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### **Implementations of New MCI Recommendations for 1st MBBS in Anatomy at B.J. Medical College, Pune - A Review**

*Sane SD  
B.J. Medical College, Pune.*

Maharashtra University of Health Sciences (MUHS) was established in 1997 and after the

qualifying Common Entrance Examination, first batch of 1<sup>st</sup> MBBS was admitted in 1998. MUHS had decided to follow the rules and regulations of new MCI recommendations 1997. The main aim of MUHS was to have uniformity in curriculum and to maintain uniform standard of Medical Education throughout the state of Maharashtra. Internal assessment, MCQ, short answer question, and applied (clinical story) questions were totally new to the teachers and students. To cope up with these new concepts, MUHS had conducted Teachers Training Workshops and trained 100 teachers. The problems encountered during the implementations of new recommendations by the teachers and students of 1<sup>st</sup> MBBS in the subject of Anatomy at BJMC are discussed. The results of University examinations of MUHS are analysed and compared with previous system. The probable solutions to the drawbacks of the system are also suggested. The new guidelines from MCI are definitely a good improvement of previous system, provided the contribution from teachers, MUHS and students is in full, true spirit and enthusiasm.

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### **Computer Assisted Learning/Teaching About History of Public Health to Pre-Clinical Medical Undergraduate Students**

*Rotti SB, Sudhir B, Veeranjani, Narayan KA  
Dept. of P & SM, JIPMER, Pondicherry*

History of public health was taught to a batch of pre-clinical medical undergraduate students in January-February 2001. About 12-15 short biographies of important public health personalities along with their photographs were collected by searching Internet web sites and journals. The whole class was divided into two batches. Two classes were conducted, one for each batch. In each class a brief introduction was given to the historical developments in Public Health; each batch was further divided into four small groups, each consisting of 4-5 students. Each small group was allotted three scientists for study. A one-page handout about each scientist was supplied to them. They studied in a group their biographies for about 25-30 minutes.

Three students from each group presented the salient features of the scientists to the whole batch in a plenary session. During the presentation the photograph of the said scientist was projected from the computer on to a T.V. screen. A pre-test and a post-test were conducted to find out the gain in the knowledge. Highlights of the feedback from the students are discussed in the paper.

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### **Problem Based Seminar for Undergraduates - A Supplement to Conventional Teaching Methods**

*Vikram Kate, Ananthkrishnan N.  
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Presently in most institutions, theoretical teaching is usually system based. There is no emphasis on problem-based approach. This leads to a mismatch between knowledge acquired and knowledge required for practice.

Aims:

1. To introduce problem based symposia as common topics for undergraduates as a supplement to conventional theory classes.
2. To incorporate audio-visual aids and patient management problems in this.

Process:

- 9 Selection of topics and sub-topics.
- 9 Allotment of sub-topics to students.
- 9 Guidance on how to prepare them.
- 9 Correction and revision of prepared material.
- 9 Supplementation by faculty with slides/X-rays and videos.
- 9 Presentation and discussion.
- 9 Getting student feedback.

Conclusions:

- 9 The attendance was good.
- 9 Students volunteered for presentation of topics and were actively involved.
- 9 Showed keen interest in the patient management problems.
- 9 Students became familiar with the use of audio-visual aids.
- 9 Overall the undergraduates found this method of problem based seminar teaching very interesting compared to the conventional one.

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### **Project Work Task at Undergraduate Level at Kilpauk Medical College, Chennai**

*Geethalakshmi S, Ravinder, Shobana, Sukumar R  
Dept. of Microbiology  
Kilpauk Medical College, Chennai.*

The undergraduate medical students of our college who are in the second year of the new MCI regulations were chosen. The students were given project topics on Applied Microbiology of Importance. The net result of this project work came out with exposing the hidden talents of the students and their creative intelligence and a very good relationship between each and every student and the teacher leading to a good academic performance and well groomed future medical professional.

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### **Student's Feedback on SIMP Following Lectures**

*Anu Goswami, Soundararaghavan S  
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Lecture is the most common teaching method used by clinical departments. During the last year of the posting in the department, 12 lectures were taken by me. It was decided to evaluate the efficacy of lecture and the capacity of students to apply the gained knowledge in hypothetical cases. Therefore, a series of simulated initial practical clinical problems relating to four major topics in gynaecology were given to students over a period of 2 hours following 12 lectures on the same topics. It was also planned to find out any lacunae in the lectures so that adequate reinforcement can be done for the subsequent lectures. After the lectures and the problem solving sessions, the students were request-ed to give a feedback maintaining anonymity. The feedback suggests that SIMP sessions were useful in recapitulating the information, helped them in practical application of the theoretical knowledge, gained during the lectures.

### **Evaluation of University Examination in the Subject of Pharmacology**

*Radha Yegnanarayan  
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B.J. Medical College, Pune.*

The II MBBS University Examinations were held for the first time under the aegis of the Maharashtra University of Health Sciences (MUHS) in December, 2000.

The examination pattern was radically different from the earlier Pune University examination pattern of short notes and brief questions. The MUHS examination has two theory papers (each of 40 marks) with MCQ (SBR) 14 marks, short answer questions (SAQ) 12 marks and long answer questions (LAQ) 14 marks in each paper. The consensus of the teachers and the feedback from the students indicated that some of the MCQs were improperly framed. Some of the SAQs were extremely simple and therefore scoring.

The University practical examination has prescription writing, comments on fixed combinations, criticism and rewriting of wrong prescriptions, labelling and questions on pharmacy and spots, related to experimental clinical pharmacology and viva. Spots help the student to score marks even if they fail in the other two questions. As viva passing is not pre-requisite for passing, the student passes solely on the theory and practical marks.

Internal assessment forms a part of the evaluation. Marks scored in two mid-term (Theory only), two terminal and one preliminary examinations (Theory and Practical) are reduced to 15 marks (Theory) and 15 marks (Practical) and figures rounded to the next highest integer. This facility coupled with the grace marks awarded at the University level ensures that practically every student gets through the internal assessment.

The multiplicity questions MCQ (SBR - testing the lowest cognitive domain), the rounding up of marks, the diminished importance of the viva examination, contribute to less discrimination between the good and very good students and also between the poor and the average students. The passing percentage is very high and the marks scored are disproportionate to their level of knowledge. The evaluation process must incorporate such items of assessment, which will test the critical faculty of students to synthesize and apply knowledge. So problem solving ability and be a good discriminator of the level of knowledge of Pharmacology and therapeutics gained during the course is reflected in the applicability of that knowledge in clinical practice and properly indicated in the marks obtained in the examinations.

[ *This is a note submitted by the author, an alumni of NTTC, to MECON-2001.* - Editor ]

*Especially for You*



*HAPPY NEW YEAR 2001*

We are very grateful to our readers who have sent New Year Greetings. We thank them all for their greetings and remembrance, and reciprocate the same to all.



MECON-2001

We thank all the participants of the 2<sup>nd</sup> Medical Education Conference of the Alumni Association of NTTC, held at JIPMER, Pondicherry on 10<sup>th</sup> and 11<sup>th</sup> March, 2001, for their keen interest and active participation in the proceedings of the conference and making it a grand success.

Hope to meet again in the 3<sup>d</sup> Medical Education Conference to be held in the year 2004.