



Bulletin of NTTC

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Theme of this Issue



COPING AND MOTIVATION

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Editorial:

COPING STRATEGIES: FOSTERING ADAPTABILITY AMONG STUDENTS

K.R. Sethuraman

The meaning of a crisis lies not in the situation but in the interaction between the situation and the ability of the person to successfully cope with it.

- W.I. Thomas

“Coping and Motivation” are the themes of the current issue. As highlighted in the main article by Prof. Ananthkrishnan, causes of low achievement by students are many. We (the teachers) need self-motivation to establish rapport with them, determine the cause of the problem in each student, and help them to cope with it. Awareness of coping strategies will help us to counsel our students better.

The ability to cope with a problem depends on the *preparation* of an individual to meet the threat and the *motivation* of the individual to meet the challenge. To state an analogy, preparation is taking a horse to water; motivation is what the horse needs to drink it.

Coping Strategies

People adopt several strategies to cope with a crisis. Psychologists have classified them as *maladaptive* if the strategy hinders and *adaptive* if it helps to overcome the crisis. Health care providers and care seekers use the following strategies to cope with health related crises.

- # Anticipatory problem solving: e.g., "I made a plan of action to cover all eventualities and stuck to it till the end."
- # Positive reappraisal: e.g., "I came out of the experience as a better person. I found new faith."
- # Self control: e.g., "I kept others from knowing how bad things really were."
- # Dependence on social support: e.g., "I contacted all my well wishers and got their advice and sympathy."
- # Confrontation: e.g., "I grappled with it and would not let go until some result was achieved."
- # Accepting Responsibility: e.g., "I realise that I have created this crisis by my actions."
- # Distancing or Denial: e.g., "Nothing has really happened. You people always exaggerate."

- # Escape or Avoidance: e.g., "I don't have to do any thing now. The problem will vanish soon."

Depending on the nature of the crisis, a given strategy may be adaptive or mal-adaptive. Usually, denial and avoidance are maladaptive and do not help in resolving health care crises.

As teachers, we have an ethical obligation to help our students to cope with their studies (and lives) in a better and adaptive manner. Who will motivate us to do so?

LOG ON TO WEB BASICS

K.R. Sethuraman

In view of the tremendous interest shown by our readers to IT, especially the Internet browsing, the Bulletin plans to carry some Internet information in every issue. We start with some weblinks in this issue meant for the beginners. These are very user friendly and motivate users to take up Internet browsing. Try them if you need to shake off the initial resistance.

Beginners' Central: A users guide to the Internet
www.northernwebs.com/bc

WebNovice (Website for beginners with advice on how to get the most during browsing)
www.webnovice.com/index2.html

The HelpWeb (Help for the beginners to solve problems in Internet browsing)
www.imaginarylandscape.com/helpweb/

Web browsers open FAQ (Frequently Asked Questions)
www.boutell.com/openfaq/browsers

Internet 101
www2.famvid.com/i101

Multimedia on the web (Microsoft)
www.microsoft.com/insider/internet/articles/multimedia.htm

(Source: *Lancet* 2000; 356: 437 - 440)

HELPING PROBLEM-LEARNERS - A SUGGESTED APPROACH

N. Ananthakrishnan

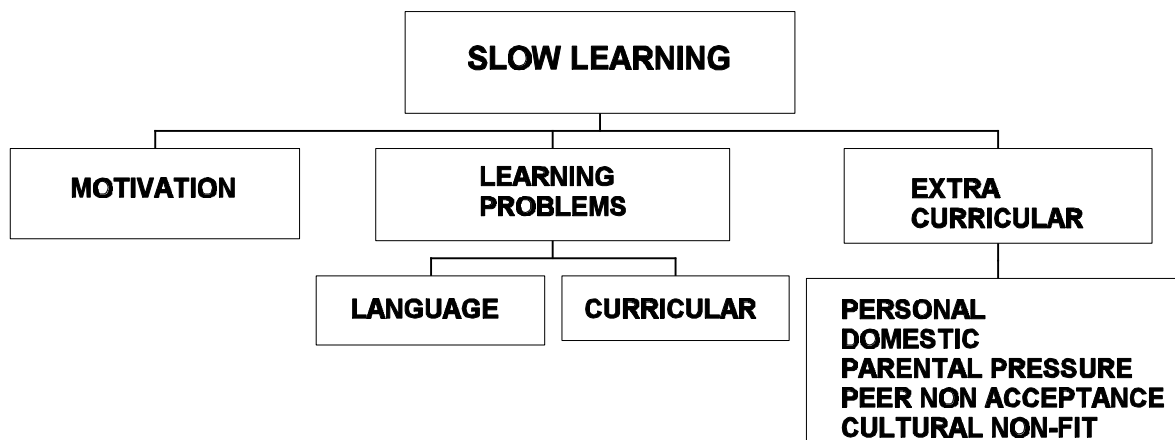
Slow learning or educational backwardness has been quite precisely defined in children. Any child who shows an educational retardation and lags behind two or more years compared to peers of his age is classified as backward. Such a precise definition is not possible in medical students. For purposes of identifying them for corrective approaches, one can label any medical student who has failed more than once in any University examination stage as a problem learner. Given the circumstances of medical examination, failing once is not uncommon and very often is not due to specific learning or motivational problems since the system is still

The main causes of slow learning in medical students can be summarised as in the chart given below. The non-curricular problems, more often than not, outweigh curricular problems.

STUDENT, TEACHER, TASK RELATIONSHIP

A normal educational process can be considered as an interaction between the teacher and the student, the main role of the teacher being to facilitate the performance of the task by the student. This relationships will mal-function if either of the two components fail, viz., (i) if the student feels unhappy, threatened, frustrated, not part of a group or if the objectives of the educational process are not clear to him, or (ii) if the teacher is not aware of individual variations between students and does not take pains to diagnose specific learning difficulties. It should be the endeavour of the teacher to raise the student's self-esteem and make the objectives look achievable.

EXTRA CURRICULAR PROBLEMS



imperfect as far as evaluation goes.

The term **students with problems in learning** is preferable to 'a backward student', a 'slow learner' or a 'non-motivated' student because of the unacceptable connotation of the latter terms. In this article they would be referred to as problem learners.

In any class of students approximately 8-10% would qualify as problem learners. These students over a period of time become pre-occupied with what they 'do not know or cannot do' rather than self introspecting on how to bridge the gap between reality and what is required or desirable.

It must be remembered that backwardness in education does not mean backwardness in all activities as many of these students excel in cultural events or in sports field. The cause of educational backwardness is not only due to lack of motivation but may be related to environmental influence, geographical or cultural factors, gender or individual variations between students.

Several extra-curricular problems contribute in a significant measure to learning difficulties. One which is often forgotten is language. Admissions being made from all over India and from students from various educational backgrounds, specific efforts must be made to familiarize students with the language of instruction (English) if required and more particularly with the local lingua franca. Inability to communicate with patients and relatives is a significant cause of 'withdrawal' during the clinical teaching. Special classes in the local language need to be arranged parti-ocularly for the simple spoken format.

Domestic, family and personal problems may distract the student from learning especially those living at large distances from homes. This is compounded by cultural factors where the student is unable to get assimilated in a culture-social environment quite different to what he has grown up in. This is particularly seen in medical colleges with reference to students from the North East.

A system of faculty preceptorship wherein a 1:1

interaction is formed and encouraged between a member of the faculty and the individual student goes a long way in over-coming this. Excessive parental or peer pressure to excel is often counter-productive especially in those students who are just about able to “cope” with the curriculum.

MOTIVATION

Motivation is defined as the factor within an individual which arouses maintains and channelizes his behavior towards a desirable goal. Thus, motivation is a goal directed behavior.

Motivation stems both from satisfaction in doing a good job and recognition from peers or superiors for the effort. The latter is as important as the former. Since motivation is goal directed, possible and achievable goals increase motivation and performance and vague or difficult goals or non-recognition of efforts inhibits motivation.

Intrinsic and extrinsic motivation

Intrinsic motivation in medical students is an inherent interest in acquiring knowledge and a desire to excel because of the realization of one's duty and a consciousness of the need and desirability of completion of the course success-fully. While this is the most desirable form of motivation it is also the least in problem learners.

Extrinsic motivation often exceeds intrinsic motivation. Extrinsic motivation arises from fear of failure, a desire to please parents or teachers, a craving for appreciation and praise, fixation on career rewards and an urge to be accepted by peers.

While teachers should strive to initiate and foster intrinsic motivation it may be prudent and necessary at times to build on external motivating factors when intrinsic motivation is totally lacking or deficient.

Mallow's hierarchy of needs

Mallow has classified the hierarchy of needs from the basic to the highest levels. An awareness of this hierarchy is essential in motivating students. Academic excellence and satisfactory performance fall in the higher hierarchy of needs. It is necessary that the lower level of needs at the physiological, safety and social levels are taken care off before expecting a problem learner to develop self esteem and self actualisation.

In trying to motivate students it would be wrong to assume that students dislike work, students must always be coerced or controlled or that students would rather be directed than exhibit a sense of responsibility on their own.

A better approach is to be aware as a teacher that most students view work as being as natural as play and rest, most students prefer to exercise self direction and control of their activities provided they are convinced of the desirability of the objectives they

are committed to and finally most students learn to accept and seek responsibility.

Causes of lack of motivation in medical students

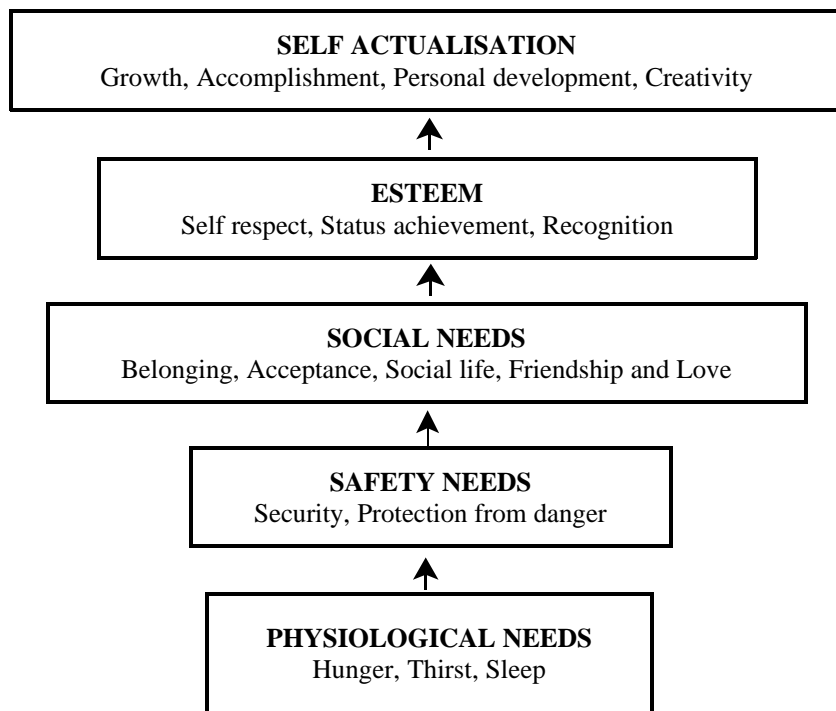
The causes of lack of motivation in students can be summarised as follows:

- a) Apathy of parents to the student's progress or excessive parental pressure
- b) Uncongenial environment
- c) Lack of self confidence
- d) Anxiety to avoid failure
- e) Low self esteem and a feeling of 'no future here'
- f) Book centered curriculum with apparent lack of relevance
- g) Inefficient teaching
- h) Lack of confidence in the system of examination which appears deficient and unfair.

Suggestion for motivating students with learning difficulties

To motivate students, the teacher needs self-motivation. The teacher should also realize that motivation once established is never permanent and may require periodic 'booster' doses to build up the levels again to a desirable plane. The teacher should also understand that the motivational fuse of different students is different and more effort has to be put in some instances compared to others.

MALLOW'S HIERARCHY OF NEEDS



Students should be made to feel motivated rather than manipulated. To this extent a teacher should come to know such students personally and recognize individual difficulties in learning which as stated earlier may be curricular or extra curricular. Performance in other spheres such as sports or cultural activities or non-medical fields such as computing must be recognized by positive reinforcement and used to foster and promote self esteem.

It is essential that when additional academia sessions are conducted for these students that they volunteer for the same on their own rather than be compelled to attend extra classes. It is also necessary to identify students with similar learning difficulties and group them together for special attention. This process is called '**ability grouping.**' While making such group socio-cultural disparities which could prevent jelling of the group should be kept in mind.

The special classes shows focus on achievable clear and relevant objectives. It should be task oriented focusing on self-learning with clarification where required. Students should be matched to tasks. Satisfactory performance should be recognized and rewarded as positive reinforcement. It should be remembered that active participation and building up of self-esteem by a demonstrable progress increases motivation. Working as a group and building on natural intrinsic or extrinsic motivational factors facilitates learning.

ROLE OF A TEACHER FOR SLOW LEARNERS

Teachers have several roles to play in this process. Their roles as planners and initiators of education increases, their roles as controllers of learning should be de-emphasised; on the other hand on their roles as supporters of morale and suppliers of information should be strengthened. The fear that students have for teachers is largely as an evaluator. This role should be completely downplayed in motivating slow learners.

In conclusion, the approach to slow learner can be summarized as follows:

- i) Accurately diagnose cause
- ii) Motivate if lack of motivation is the problem
- iii) Provide emotional support
- iv) Develop a trusting relationship with students
- v) Provide non-threatening learning ambience
- vi) Foster autonomy and problem solving abilities
- vii) Provide individual and confidential feedback on progress
- viii) Enable student to get peer acceptance by fostering group activity

- ix) Avoid competition
- x) Explain relevance of learning exercise
- xi) Establish ability grouping to facilitate learning
- xii) Recognize and reward improvements, move from disincentive to incentives
- xiii) Move from large group to small group or better still to individual learning activities.

Suggested Reading

1. *Lens, W. Motivation and learning. In: Husen T, Postlethwaite (eds). The International Encyclopedia of Education, Vol.7, 2nd ed. Great Britain: Pergamon, 1994; pp.3936-42.*
2. *Santhanam S. Teacher and Learners (outline of educational psychology) Ch.6. In: Motivation. 2nd ed., Chennai: Shantha Publishers, 1992; pp.282-315.*
3. *Santhanam, S. Individual differences, exceptional children. Chapter 10. In: Motivation. 2nd ed. Chennai: Shantha Publishers, 1992; pp. 393-408.*
3. *Aggarwal JC. Diverse issues - education of the deprived sections. Chapter 30.2. In: Teacher and Education in a Developing Society. New Delhi: Vikas Publishing House Pvt Ltd. 1996; pp. 475-79.*
4. *Denny R. Motivate to Win - Tested Techniques for Greater Achievement. New Delhi: UBS Publishers Distributors Ltd., 1998.*
6. *Adair J. Effective Motivation. How to Get Extraordinary Results From Everyone. New Delhi: Rupa and Co., 1999.*

EVALUATION AND CURRICULUM

D.P. Thombre

Curriculum is a deliberate, planned exercise based on multiple inputs. It specifies and organises sequentially educational activities in accordance with the student's needs. In redesigning curriculum, emphasis shifts to the development of relevant knowledge, skills and attitudes by eliminating irrelevant information.

Present experience shows that choice of evaluation system takes precedence in redesigning curriculum. Competency based assessment is considered a method of choice, but if the curriculum

remains silent on development of various competencies, the assessment tools are not tailored in quantifying student's intellectual and other abilities. When an evaluation system deviates from such goals, it fails to depict the strengths and weaknesses of students' learning and competencies. Such a system lacks in pursuing educational reforms and continues to value the results more than learning.

Educational objectives and teaching learning activities constitute two threads of the curriculum fabric. Unless these two components receive adequate attention from teachers, the evaluation system will not match with the aim of promoting academic excellence. Survey of ongoing educational activities displays lack of enthusiasm of teachers in pursuing new educational strategies and to innovate teaching-learning activities. Changes in methods of assessment marginally improves academic activities which still remain examination oriented.

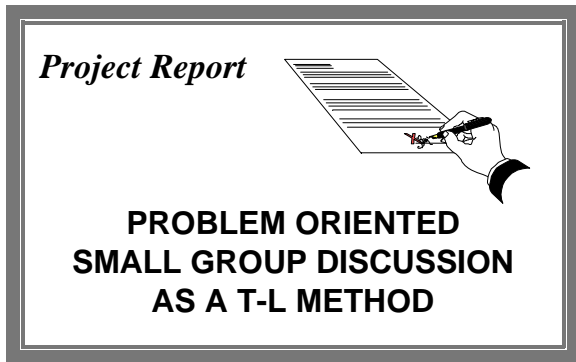
It is not difficult to find an answer to such discrepancy. It is convenient and easy for teachers to adhere to old practices, as they exhibit lack of conviction in new educational strategies, apathy in conducting educational research and a sense of misplaced satisfaction in continuing traditional methods. Therefore, in the absence of objectives with desired competencies, the curriculum cannot bring about appropriate changes in teaching-learning experiences and evaluation system.

Classroom activities need to be utilised to strengthen major scientific ideas, improve clinical approach and develop professional norms and values. Integrated teaching finds no place in regular schedule. Problem based learning fosters better understanding of scientific basis, goes beyond the format of a text book and lays emphasis on the process of reasoning forward from findings to diseases. These learning strategies should get gradually integrated in our academic activities. In spite of changes in examination pattern, the teaching learning experiences remain rooted to the old methods. It is obvious that it is misleading to assume that change in evaluation alone will bring about re-organisation of learning strategies. On the other hand, judicious selection of objectives and experiences ensures a relevant, competency based evaluation pattern that focuses on core content and level of achievements in all domains.

Note:

Dr. D.P. Thombre was a Resource Person of NTTC earlier.

- Editor



M. Palaniappan

Introduction

This is a preliminary report on the value of problem oriented small group discussion as a T-L method at Perundurai Medical College Hospital (PMCH), Perundurai.

PMCH is an undergraduate medical college hospital oriented towards training students to undertake the responsibilities of a physician of first contact who is capable of looking after the preventive, promotive, curative and rehabilitative aspects of Medicine. The hospital caters to Tamil Nadu State Transport Corporation employees as well as paying and non-paying patients. Clinical material is varied, though limited.

Small Group Discussion as a T-L Method at PMCH

The situation given provides an admirable opportunity of employing and evaluating small group discussion as a T-L method. Though the method has been in use from the time of the beginning of the Institution, planned statistical data collection has not been done in the past.

Method

Students, after qualifying at the pre-clinical subjects gate examination, enter the clinical curriculum at an average of 50 to 60 every year. The students were divided into groups, each group comprising around 15 students. Each group was posted in a different clinical department for a notified period, upon completion of which, the groups were rotated between the departments. This traditional method makes possible maximum usage of clinical material, at the same time permitting personal attention to be given to individual groups.

Problem Orientation

It goes without saying that the classified text approach to Medicine is different from the day to day clinical approach where patients do not come with disease labels but with individual clinical problems. Emphasis was placed on cultivating logical and scientific habits of thought, clarity of expression and independence of judgement, ability to collect and analyze information and to correlate them. Stress was placed on problem based approach, analysis of problems, clinical methods, laboratory aids to diagnosis, interpretation of data and first contact management decisions in a step by step manner, in short stimulation of mental problem solving.

Opening of the Sessions

Each session was opened by the teacher identifying and familiarising with the learners and vice versa.

Course of the Method

This method as carried out in the Department of Surgery did not lose sight of the departmental goal of producing graduates capable of delivering efficient first contact surgical care. Introductory course in clinical methods was given to students and the familiarity of the students with the methods verified. Subsequently, suitably selected patients with particular clinical problems, e.g., venous ulcer of the leg or thyroid swelling, etc., were given to the group posted. Demonstrations were given to the students as and when required. The students were encouraged to examine the patients in entirety, their grasp of the on-hand clinical problem constantly assessed by question and answers and discussion and the learners guided through the diagnostic and management thinking process.

Evaluation

Evaluation was done at the beginning of every session, the contents of the previous session being the evaluation topic. This was of the viva voce type. At the end of a group of sessions, MCQ, essay and short note type of written examinations were conducted. This revealed that about 75% of students were greatly helped and benefitted by the problem oriented small group discussion as a T-L method. Ten to 15%, though initially slow, responded favourably with continuation of the method. About 10% were not benefitted indicating that they needed individual training, assignments, self study and more time.

Note:

Group discussion needs a focus - otherwise it may not work as a T-L method. The focus can be a problem to be solved, as designed in this project. The focus could also be a decision to be taken by consensus or a multi-faceted issue to be thrashed out.

-Editor



Sir,

Teaching/Learning Community Pharmacology through Field Work

Students can learn Community Pharmacology in collaboration with Community Medicine Department. This can be imparted in two ways:

1. By collecting data of drug utilisation/demand for each member of a family in the locality over a period of time and analyzing it. For this purpose attach each student to two families in the selected locality. The data is collected with the help of a properly designed proforma. This data will enable us to highlight drug economics, drug abuse, self-medication, poor patient compliance and so on.

2. Students can educate the community on "Over the counter drugs (OTC drugs)". This is implemented in the last couple of months of training in Pharmacology. The students should provide education on OTC drugs so that people will be aware of their adverse effects. They should also impart medication advice on commonly used drugs. The advantages are: (a) It develops communication skills, and (b) It helps the students to develop a good doctor-patient relationship in future.

*Dr. Reneega Gangadhar
Assoc Prof of Pharmacology
Medical College, Trivandrum.*

Note:

Several letters of appreciation have reached us by e-mail on the topical theme of "IT in Medical Education" (Vol.7, No.1, March 2000 issue). We thank all the readers for the same. Due to space constraints, we are not able to publish them.

- Editor

Learning Resource Materials (LRMs)

New

"Medical Education: Principles and Practice"

The much awaited second edition of the book has been published in March 2000.
Price: Rs.150/-.

This expanded edition has eight more chapters. Initial comments from readers:

"Great team effort! NTTC does it again."

"This edition is a quantum improvement over the earlier edition."

"The addition of cartoons is appreciated."

"This book will become de-facto standard textbook on Medical Education."

Order your copy now:

Orders may be sent, along with D.D. drawn in favour of *Alumni Association of NTTC, JIPMER, Pondicherry-605006*, to the office of the NTTC. Postage (registered book post) is free.

New

Book: Trick or Treat - A Survival Guide to Health Care.

Author: K.R. Sethuraman.
Publisher: EQUIP,
PB No.8,

D.Nagar, Pondicherry-6
Price: Rs.120/-

A handy book on coping strategies in health care, character development and controversies in health care scene in India. Medical educators can creatively use each of the 52 chapters - in the form of role-plays and group discussions - to convey different view points of health care. Students can gain a holistic perspective of health and health care.

Some comments:

"Commendable effort! I tried hard to find one missing element of health care. I could find none."

- Brig. Dr. Neelakandan (Retd.), Chennai.

"The book is a wonderful exposition of author's commitment to the society at

large. This will be a good light reading for medical professionals, by public and health activists.”

- Prof. K.V. Krishna Das, Trivandrum

Order your copy now:

Orders may be sent along with D.D. drawn in favour of “*Alumni Association of NTTC, JIPMER, Pondicherry-605006*” or “*EQUIP Society, Pondicherry*”. Postage free.

Book: Medical Education - Principles and Practice (Vol.II -Trainer’s Manual).

Price: Rs.100/- payable by D.D. drawn on *Alumni Association of NTTC, JIPMER, Pondicherry-605006*.

Book: Implementing Innovations in Clinical Skills.

Price: Rs.80/- payable by D.D. drawn on *Alumni Association of NTTC, JIPMER, Pondicherry-605006*.

Books available from Jaypee Brothers, New Delhi or their dealers:

Title: Objective Structured Clinical Examination. 2nd ed., 2000.

Author: Dr. K.R. Sethuraman

Price: Rs.70/- only

Title: A Practical Approach to PG Dissertation

Authors: Drs. R. Raveendran & B. Gitanjali

Price: Rs.100/- only

For orders, please contact the publisher.

Book: A Manual of Practical Exercises in Pharmacology. (New reprint)

For orders, please contact the Head of the Department of Pharmacology, JIPMER, Pondicherry-605006.

Video: How to Conduct Clinical and Oral Examinations.

Produced by NTTC Faculty, JIPMER.

Price: Rs.250/-

For orders, please contact the National Board of Examinations, New Delhi-110 029.

Recent NTTC Activities

1. Interns Orientation Programme for the Interns of JIPMER - January 2000 Batch and June/July 1999 Batch (additional) was conducted at NTTC, JIPMER, from 2nd to 4th February, 2000.
2. 42nd National Course on Educational Science for Teachers of Health Professionals was conducted from 21st February to 2nd March, 2000 at NTTC, JIPMER. Twenty participants from various medical colleges in the States of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and in the Union Territory of Pondicherry attended the course.
3. A Training of Trainers Workshop on “Training Skills Development” was conducted for the medical officers and other personnel of IPP-VIII-MCH, Hyderabad from 24th to 27th April, 2000 at NTTC, JIPMER. This was sponsored by the IPP-VIII-MCH, Hyderabad.
4. The Core Group of Evidence Based Medicine consisting of Dr. K.R. Sethuraman, Dr. C.H. Shashindran, Dr. S. Srinivasan, Dr. S. Jagdish and Dr. Gita Rajagopalan conducted a Training of Trainers Workshop on “Rational Use of Drugs for the Kerala State Drug Formulary Committee, Thiruvananthapuram from 18th to 20th May, 2000.
5. Dr. K.R. Sethuraman and Dr. C.H. Shashindran, Resource Persons of NTTC, participated as main resource persons in the National Workshop on Medical Education conducted by the MGM Medical College, Navi Mumbai from 10th to 15th July, 2000.

Forthcoming NTTC Activities

1. 43rd National Course on Educational Science for Teachers of Health Professionals from 18th to 28th September, 2000.
2. Interns Orientation Programme for the Interns of JIPMER - January 2001 Batch in January/February 2001.



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