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Theme of this Issue

– NON-SCHOLASTIC ABILITIES

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***Editorial* - 1**

FOSTERING HUMANISM AND HOLISTIC APPROACH IN MEDICAL EDUCATION

K.R.Sethuraman

Flexner's Fallacy:

It is now well established that narrow bio-medical model of medical curriculum formulated by Flexner in 1910 is one of the major causes of producing medical graduates who know a lot about diseases but very little about patients - "Ignorant Servants" is a label that describe them well.

New Paradigm:

Since GPEP report of 1984, Wickenberg consensus of 1988 and Edinburgh declaration of 1993, these has been a major paradigm shift in medial curricula. Humanistic quality and holistic approach to health care are now fostered.

Unfortunately these topics do not belong to any disciplines in medical colleges and therefore tend to get neglected.

A way out:

The Medical Council of India regulations 1997 has suggested 'clinical demonstrations' in the afternoons of 6^{th} and 7^{th} semesters.

Since, the medical students are shown clinical demonstrations in the mornings, this period can be used for integrated teaching using modular approach. Important topics currently neglected because they fall in 'No man's land' can be accommodated in this time slot. These include - Medical ethics, communication skills in clinical practice, evidence based medicine, rational use of therapy and diagnostic aids, coping behaviour among patients, counselling, motivation, basics of health economics etc. In addition, important topics like National Health Programmes, common communicable and non-communicable diseases can also be taken up for modular teaching.

The present issue highlights the non-scholastic abilities that need to be fostered in our MBBS graduates. Can the 21^{st} centuary medical teachers rise up to this challenge?

EFFECT OF NUTRITIONAL AND SOCIOECONOMIC STATUS ON NON-SCHOLASTIC ACHIEVEMENT OF SCHOOL CHILDREN

B.Vishnu Bhat, B.V.Adkoli and P.C.Barua

Non-scholastic abilities are important in shaping the personality of an individual but it is not evaluated in examinations. The present study was conducted to evaluate the non-scholastic ability of children in Class I to V in relation to their nutritional and sociol-economic status. The nutritional status of children was identified based on the classification by the Indian Academy of Pediatrics as per weight per age of the child. Socio-economic status was graded based on parents income, educational status, family size, type of housing, water supply and excreta disposal. The non-scholastic achievement of the students were graded on a three point Likert scale devised by the authors consisting of 20 items like obedience honesty, discipline, cheerfulness, etc. The class teacher was requested to grade the students on the non-scholastic achievement scale. The results were analysed using chisquare test.

There were 108 children in the study group. Among them 50.9% had normal nutritional status, 31.5% Grade I and 17.6% Grade II malnutrition. Sixty-eight children belonged to high and 40 belonged to low socio-economic status. It was observed that was no correlation between the nutritional status and non-scholastic achievement of the children ($p > 0.05$). But there was significant correlation between the sociol-economic status and non-scholastic performance ($p < 0.001$). Since as teachers, we should aim for the overall development of children rather than only academic achievement, we should develop methods to improve their non-scholastic in addition to the scholastic achievements.

Intelligence *is the ability to start and sustain in spite of emotional interferences, activities that are difficult, novel and useful in an economic manner.*

Stoddard

LEAD ARTICLE - I

NON-SCHOLASTIC ABILITIES

Santosh Kumar

1. INTRODUCTION

Ability is defined as the power and skills especially to do, think, act and make. [1]The word scholastic means "of or concerning schools and teaching". [1]By implication the word non-scholastic can be taken to mean "not of or concerning schools and teaching". In general, non-scholastic abilities include those abilities which are not traditionally taught and evaluated in schools. These abilities include attitudes, moral values, leadership, motivation, etc. Specifically, non-scholastic abilities in medical profession can be defined as general abilities that are not specific to medicine but these are needed for effective functioning of any caring person. These abilities reflect the later performance of the students as doctors. Hence, this is the concern of curriculum planners or medical educators.

In this article various possible abilities (learning outcomes), and non-scholastic abilities in early and late school education and post-graduate medical education are reviewed. Later, non-scholastic abilities in undergraduate medical education are discussed and a study of Indian medical educators about expected qualities in medical doctors is described. Finally, methods of fostering and evaluating non-scholastic abilities in undergraduate medical education are suggested.

2. VARIOUS POSSIBLE ABILITIES (LEARNING OUTCOMES)

Following learning outcomes have been described:[2]

1. Knowledge
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation
7. Drawing and sketching skills
8. Ability to handle instruments
9. Communication skills (Skills in writing and talking)
10. Social skills (Team work and leadership)
11. Personal qualities (Regularity, hard work, inventiveness, originality and initiative)
12. Interest
13. Positive and Scientific attitude
14. Appreciation
15. Creativity

In the context of medical profession, of the above mentioned learning outcomes, outcomes 9 to 15 can be termed non-scholastic abilities.

3. NON-SCHOLASTIC ABILITIES IN EARLY SCHOOL EDUCATION**.**

Adkoli et al[3] have described following non-scholastic abilities as pertaining to primary school students (class 1 to 5) along with a rating scale.

1	Obedient	3	2	1	Disobedient
2	Honest	3	2	1	Dishonest
3	Assumes leadership	3	2	1	Takes no initiative
4	Cooperates	3	2	1	Does not cooperate
5	Truthful	3	2	1	Tells lies
6	Disciplined	3	2	1	Indisciplined
7	No temper tantrums	3	2	1	Shows temper tantrums
8	Helps others	3	2	1	Seeks others help
9	Cheerful	3	2	1	Not cheerful
10	Active	3	2	1	Passive
11	Follows group norms	3	2	1	Deviates from norms
12	Punctual	3	2	1	Not punctual
13	Has clean habits	3	2	1	No clean habits
14	Joins school assembly	3	2	1	Remains absent
15	Greets elders	3	2	1	No respect for elders
16	Participates in co-curricular activities (CCA)	3	2	1	Does not participate in CCA
17	Has hobbies like sports, music, etc	3	2	1	Has no hobbies or outside interest
18	Shares things with others	3	2	1	Does not share with others
19	Confident	3	2	1	Diffident
20	Shows normal behaviour	3	2	1	Shows abnormal behaviour

4 NON-SCHOLASTIC ABILITIES IN LATE SCHOOL EDUCATION

The Central Board of Secondary Education prescribes following items in its school-based evaluation for class IX and X.[4]

1. Academic Performance

A. Curriculum subjects (Language 1 and 2, Mathematics, Science, Social Science), Additional and Optional subjects.

B. Activities (Work experience, Art Education, Health Education)

2. Personal and Social Qualities

(Regularity, Punctuality, Discipline, Cleanliness)

3. Attitudes and Values

(Towards teachers, towards schoolmates, towards school programmes)

4. Co-curricular Activities

A. Literary and Scientific Activities (extra reading, creative writing, public speaking/elocution/debate, subject clubs)

B. Cultural Activities (Music, Dance, Dramatics, Drawing and Painting)

5. Outdoor Activities
(Sports and Games, Physical Education)

In the above mentioned list, item 1A pertains to scholastic abilities and all others items (1B, 2 to 5) come under non-scholastic abilities.

5. NON-SCHOLASTIC ABILITIES IN POSTGRADUATE MEDICAL EDUCATION

Following abilities (both scholastic and non-scholastic) have been identified for residents.[5]

1. History taking
2. Physical examination
3. Diagnostic approach
4. Management approach
5. Procedural skills
6. Record keeping
7. Understanding the basic mechanisms
8. Responsibility and conduct
9. Relationship with patients and their families
10. Relationship with peers and other professionals
11. Self-directed learning

In the above list items 8, 9 and 10 obviously fall under non-scholastic abilities. Responsibility and conduct include punctuality, reliability, dependability, enthusiasm, reaction under stress, observation of work routines and standards of conduct. Relationship with patients and their families includes availability during non-working hours, caring approach to patients, giving clear and appropriate information and keeping patients / family informed and involved. Relationship with peers and other professionals includes collaboration, giving clear / courteous instruction and information, accepting constructive criticism and maintenance of team spirit.

Following non-scholastic abilities were identified for an M.Ch. (Urology)curriculum.[6]

1. Regularity (Ward rounds, Seminars, Journal Clubs
2. Innovative ability and creativity in problem solving
3. Decision making
4. Initiative
5. Interpersonal skills
6. Attitudes
7. Moral Values
8. Leadership qualities
9. Organisational ability

6. NON-SCHOLASTIC ABILITIES IN UNDER GRADUATE MEDICAL EDUCATION.

Following non-scholastic abilities have been identified for undergraduate medical students.[7]

1. Study related
(Originality, initiative, scientific attitude, creativity)

2. Social
(Team work, leadership, hard work, punctuality)

3. Communication
(with peers, teachers, patients and assertion)

4. Inter-disciplinary
(sexuality, grief, suicide, poverty, ethics, terminal illness)

In general a medical graduate is expected to be alert, observant, adaptable, honest and caring.

He should honour confidentiality and refer patients when needed.

7. EXPECTATIONS OF INDIAN DOCTORS IN THEIR OWN DOCTOR:

Twenty five doctors belonging to different specialities were asked by the author to mention qualities they considered most desirable while choosing their doctors.[8] Twenty four doctors responded. A total of one hundred and forty seven responses were obtained. Their responses could be grouped into the following pedagogically meaningful groups:

Sl. No.	My doctor should:	No. of responses
1	Be caring*	54
2	Diagnose and manage health problems**	50
3	Be responsible	10
4	Be approachable	7
5	Be affordable	6
6	Have good reputation	6
7	Counsel and teach	4
8	Be patient	3
9	Be willing and able to manage emergencies	3
10	Be aware of one's limitations	2
11	Solve problems	2
12	Communicate well	2

*The responses in this group exceed the number of doctors because many descriptors (e.g.: be polite, be cordial, be kind, etc.) were used to denote different aspects of caring and many doctors used more than one descriptor.

**The responses in this group exceed the number of doctors because many descriptors (e.g.: have knowledge, possess skills, give follow up care, have expertise, be efficient, be effective, have experience, etc.) were used to denote different aspect of patient management and many doctors used more than one descriptor.

From the above list it can be seen that only group 2 belongs to scholastic abilities and all other groups belong to non-scholastic abilities. Thus, non-scholastic abilities are as important as scholastic abilities.

8. FOSTERING NON-SCHOLASTIC ABILITIES.

It involves three components:

A. Teachers should value these abilities.

B. Desirable behaviours can be fostered by providing role models, giving feedback and providing continuous reinforcement.

C. Skills (e.g.: communication skills) can be promoted by three - step approach of explaining, demonstrating and allowing practice.

9. EVALUATING NON-SCHOLASTIC ABILITIES.

The skills (e.g. communication skills) can be evaluated by using a check-list. Thus the skill of motivating patients' attendants for blood donation can be evaluated by using the following check-list.

The student:	Tick if the step is performed
1.greets the attendant	
2.makes him comfortable	
3. explains the need for blood donation	
4.explains the safety of blood donation	
5.allows clarifications and clears doubts	
6.uses non-technical language	
7.thanks the attendant	

Various behaviours can be evaluated by using rating scales. Thus the ability of working effectively as a member of health team can be assessed by the following 3-point rating scale.

Item	To a large extent	To a small extent	Not at all
1. Team spirit			
2.Acceptance of authority			
3.Acceptance of criticism			
4.Willingness to seek help			

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EDITORIAL - 2

RAISING MORALITY AMONG STUDENTS

Dr.K.R.Sethuraman

In recent years there has been a noticeable decline of ethics, morality and spirituality in our society and in our profession. Educators have a serious responsibility to teach their students the decent, and honourable way to live and practice medicine. Students need to be taught a basic sense of morality, how to behave, how to make correct choices, and how to take the consequences of their actions.

Raising students with a sense of morality, a hierarchy of values, and an understanding of social responsibility starts at school and continues through college. It is important to teach students right from wrong right from the start; students learn these lessons primarily from what, where, and how they live on a daily basis.

When teaching a student the difference between right and wrong, certain virtues must be emphasized. Respect, honesty, compassion, maturity, peace, charity, hope, and faith must be instilled into their very being. These are the basic values of human existence -- at least in a civilized society.

Good habits and ethical behaviour start with the teachers; we have to be the role models for our students. Students in turn, should learn to be responsible to their teachers. When students learn obedience to teachers, they have learned the basic premise of the laws of morality and their connection with the laws of society. This in no way diminishes the student's freedom. It enhances their ability to think, judge, and act correctly, thereby laying the foundation for peace and order in their life and in the lives of those around them.

Moral development involves building a positive self-esteem whereby one takes pride in what they are. In helping to shape our students' character, it is necessary to instill:

- Inner motivation and mental, emotional & spiritual strength
- Identity and Self-worth
- Feelings of usefulness
- Feelings of security
- Self-discipline and Equipoise
- Commitment to ethical service and sharing
- Independence and professional autonomy
- Awareness of interdependence with other healthcare workers and patients.
- Respecting patients' rights and Valuing assistance from co-workers.

In the complex world of evidence and specialty based medical practice, it is difficult for our students to get the “big picture” and to realize the importance of these qualities in later day practice. (After all they are non-exam topics, right?)

The onus is on enlightened medical educators to foster these non-scholastic abilities and values in their students. The society can then benefit from a new breed of medical professionals who combine technical competence with humanistic approach.

Reference: *Barbara Sweeney on “Raising Morality” written for Dreamlife <www.yahoo.com>*

LEAD ARTICLE - II

COMMUNICATION AND BEHAVIOURAL SKILLS

K. R. Sethuraman

Words of comfort, skilfully administered are the oldest therapy known to man. - Louis Nizer

Introduction

It is paradoxical that, at a time of Internet based global communication and "Cyber medicine," we are faced with breakdown in communication between patients and doctors. Increasing patient dissatisfaction, rising numbers of complaints and claims for malpractice and abandonment of conventional medicine for unproven alternatives are the major problems today. In a nation-wide household telephonic survey in US, physicians were *rated lowest on communication skills and on attention to the costs*. A similar survey among the physicians showed that they too rated their training the lowest in these same areas.

It is apparent that lack of proper training is why the public need for adequate information is not fully met by the doctors. The Toronto Consensus of 1991 stated that communication problems in clinical practice are common and that the quality of communication is related to health outcome for patients but that traditional medical education is ineffective at teaching communication. Teaching communication skills should be included at all levels of medical education and, even more importantly, should be a mandatory element of the medical curriculum and programmes of continuing medical education.

Ten Attributes of Effective Communication

Having never learnt the science of communication skills formally, most medical educators follow an intuitive approach to communicating with their patients. Later, they become positive or negative or mixed role models for their students to learn from. This can be corrected only when a critical mass of medical educators learn the great advances in communication science and apply it in clinical practice and in formal training of their students.

It is never too late to start. Identifying the top ten attributes of effective medical communication is a good point to start learning[1]. They are listed below with examples from type-1 diabetes mellitus -

1. Accuracy: Valid content presented accurately. An example - informing a newly diagnosed type-1 diabetic about the nature of the disease and its therapy.
2. *Availability:* The message is available to the end user at the time of its need. An example - the patient should have appropriate information about self-injections at the time and the place of the act, i.e., at home and before breakfast. How can the doctor ensure it? Written information, like a handout is a good solution.
3. *Timeliness:* The message is conveyed when the audience is in need of and most receptive to it. The preceding example applies to this too.
4. *Understandability:* Follows the norms of clarity, choice of words appropriate for the patient. An example - the language used for an illiterate with diabetes should be far different from that used for a college student.
5. *Culturally competent*: The message, the medium and the mode of delivery are appropriate for the culture of the target group. An example - Misinformed diabetics are known to stop animal derived insulin on religious grounds. When talking about insulin, explain to a Hindu patient that non-bovine insulin is available and similarly tell a Muslim patient that non-porcine insulin is available.
6. *Reliability*: The patient feels he/she can rely on the source, and the message. This quality is fostered by rapport building, adequate knowledge of the subject and keenness shown by the doctor in clarifying the doubts of the patient.
7. *Evidence based*: The message and the communication method are evidence based. An example - Tell a patient reluctant to start on lifelong insulin injections why he/she should adhere to the advice using facts and figures in a caring - not scaring - way!
8. *Balance*: The presentation is balanced and covers the felt need *vs*. real need, benefit and risk, cost and benefit, natural history and outlook after intervention etc. An example - In real life practice, it may not be feasible for many a patient to follow the best possible anti-diabetic treatment for various non-medical reasons. While giving advice, a caring doctor should take the life-world of the patient into consideration.[2]
9. *Consistency*: The message is internally

consistent over time and externally consistent with other sources of unbiased information. Professional attitude and competence are two basic pre-requisites to achieve consistency. Listening to a well seasoned professional giving expert advice should be like listening to a live performance of a maestro.

10. *Repetition*: Repeated delivery to reinforce the message. "Tell them what you are going to say; say it; tell them what you have just said." Important information should be introduced, elaborated upon and summarised thereby reinforcing the main points. A still more effective way is to get a feedback - ask the patients to repeat what you have just told them.

Doctor-patient misunderstanding

Misunderstanding is the commonest cause of medical litigation[1, 2]. Awareness of common reasons for doctor-patient misunderstanding may help one to nip the problem in the bud[3].

Patient information unknown to doctor. An easy example: not knowing that the female patient being prescribed a quinolone for "Honey moon cystitis" could be pregnant. Remember, by the time the next menstrual period is missed, she would have already conceived two weeks earlier. Eliciting relevant information from a patient needs clinical competence and mindfulness during consultations.

Doctor information unknown to patient. In the preceding example, if the doctor had informed the patient that quinolone is a good choice for a non-pregnant woman, she might have informed him/her that she is not currently following any birth control measures and may even be pregnant.

Conflicting information given. This may be due to doctor-to-doctor variation or mismatch between verbal and non-verbal messages. Two doctors in the same unit or from different specialities may give different views on diagnosis, treatment or prognosis confusing patients and their relatives. A single doctor can cause similar confusion if the verbal output ("You are doing fine") does not match the non-verbal output as body language (signs of nervousness of deception). Body language is subconscious and unless one is a well-trained actor, reveals the truth. Patients instinctively believe doctors' body language more than their spoken words.

Disagreement about attribution of causation or nature of illness. This is known as the 'knowledge gap' between doctors and patients. Patients see their illness from their life-world: "Why me? Why now? How will it affect my life?" are their main worries. So non-medical explanations based on astrology, religion, faith etc seem perfectly logical for them. Meanwhile, doctors are concerned about bio-medical questions like, "What is the diagnosis? How can I help?" For example, while the doctor struggles to determine the cause of stroke in a young patient, he may "know" that loss of power in his right hand is punishment for stealing money from his mother's cash box.

Failure of communication about doctor's decision. For medical reasons, doctors make several decisions for their patients based on implied trust. But if the outcome is unacceptable to the patients or their relatives, they may accuse the doctor of "playing God." In the Internet based information era, where any one can access latest medical information in an instant, the doctors need to reorient themselves to shared decision making.

Relationship factors. Also known as "Dysfunctional Dyad," this refers to a vitiated relationship between a doctor and a patient. In this situation, it is very difficult to treat a patient. The doctor concerned should have capacity to negotiate with the hostile, reticent or paranoid patient and take him or her back to a fiduciary relationship based on trust. There are advanced skills like "mental judo" to achieve this transition[1, 2].

Good Doctor-Patient Relationship

It is difficult to define this complex relationship. According to many studies, the necessary ingredients for *goodness* are:

1) Mutual trust
2) Honesty, and devotion to patient-care
3) Social orientation
4) Non-judgmental attitude
5) Friendliness and empathy
6) Conveying interest and a desire to help
7) Giving patients compliments
8) Making inoffensive personal remarks, laughing or making jokes

Being multi-faceted and multi-dimensional, doctor-patient relationship is one of the most complex social relationships. If a doctor and a

patient are glad to see each other in a clinical dyad, then it marks a satisfactory relationship.

Teaching and Learning of Communication skills

It is a distinct Art to talk Medicine in the language of non-medical man. - E. H. Goodman

With proper teaching learning, it is not difficult to acquire communication skills. One should realise that communication is not merely as a set of skills and that communicating well is not just a matter of learning discrete pieces of surface behaviour. It is an observable manifestation of appropriate attitude, which may be much more difficult to explicitly convey and instantly acquire. It requires development of appropriate professional and ethical attitude as well as cultivation of relevant behavioural skills.

Appropriate methods for imparting these skills, in order of increasing difficulty and effectiveness include-

Case study - It is relatively easy to collect clinical vignettes, which are of educational value in the area of doctor-patient communication. Students can peruse handouts of such case studies and learn the dos and don'ts.

Narrative - This refers to vignettes presented by a seasoned teacher to a group of students, who then react to the narrative and also seek clarifications on communication skills. This is a lively and interactive method of teaching and learning. It does not require equipments or high tech gadgets. However, a committed and experienced teacher is a must.

Video trigger - Vignettes can be acted out as skits and recorded on videotape. These skits are shown to students and meant to provoke them and trigger a group discussion. The video-skits can be also culled from small parts of films like Anand (for topics like cancer, dying patient, empathy, etc) or Patch Adams (patient-orientation, trust-building, caring etc). A moderator is required to initiate the session and conduct the group discussion after each trigger.

Role-play - If actors are available, (from among the staff and students) then live role-play can be arranged rather than the video triggers. The impact is more provided and one does not need the gadgets for recording and playing back the video skits. Like the previous methods, role-play also needs group discussion following each skit. The discussion also "debriefs" the role-players and brings them back to their usual selves.

Simulation role-play - In contrast to the previous method, which is merely a passive observation of role-plays, in simulation method, each student by turns, is involved in the role-play. They may play the role of a doctor, a patient or a caretaker of the patient, depending on the skit. Each student is actively involved in the communication process and acquires skills by actual experience and also by feedback given by the observers who use a checklist and rate each performance. This is time consuming and need a lot of preparation but gives individual learning experience.

Simulation with video recording and corrective feedback - This is similar to the previous method with the addition of video recording of the performance of every student in the simulation role-play. The feedback session is very effective as the student can observe his/her own action objectively and correct his/her mistakes. This is the most effective teaching-learning method but needs a well-equipped communication skills laboratory.

Standardised patient (SP) encounter - It should be possible in any teaching unit to collect a few patients willing to spend some time in helping students to learn new skills. The moderator has to *standardise* the patient first by training them to give consistent responses in every encounter with a student. Individually each student is allowed to communicate with such a patient on specific areas like eliciting sexual history, advising to curb drinking or give up smoking etc. Using a checklist, an observer rates the performance and gives a corrective feedback. If the SP is educated and observant, even he/she can be trained to give a useful feedback to the students. In Indian setting, this is more feasible than video-recorded feedback and is a very effective alternative.

Organising a Module on Communication Skills

Workshop method may be the most suitable method as it is flexible, practical problem oriented and can mix and match several of the

methods discussed above. The workshop can include any or all of the following learning units related to doctor-patient communication and prudent physician behaviour[1, 3].

1. Information sharing: models & methods[1, 4, 5]
2. Questioning skills
3. Listening skills
4. Answering skills
5. Non-verbal behaviour
6. Rapport building skills
7. Counselling skills
8. Skills of persuasion
9. Reassurance of the worried well
10. Talking with the parents of young patients
11. Dealing with the elderly
12. Communicating prognosis, hope and risk
13. Dealing with chronic diseases and dying
14. Integrating Religion, Faith and Culture in health care
15. Non-compliance and deception
16. Dealing with patient dissatisfaction
17. Negotiating skills
18. Patient-centeredness in Decision making
19. Prudent and "Mindful" practice
20. Effective use of Tele-communication in health care.

Formal evaluation may not be possible within the existing curriculum for the post-graduate studies. However, for undergraduates, it is easily possible to allot some weightage in the internal assessment for proficiency in these skills. Objective structured clinical examination (OSCE) may be an objective method of evaluating these skills. Simulated patients (role-players) or standardised patients (real patients trained to give consistent responses) could be used as subjects for OSCE.

An Example of a Successful Module

At JIPMER, Pondicherry, an annual orientation programme is being conducted for interns since 1993 on "Quality Care." Modules on oral and written communication and on medical ethics are incorporated in this 3-day workshop conducted after one month of internship.

The art and practice of oral communication are conveyed in two parts over three hours.

The first part is on "Patient personality types" and focuses on their recognition from non-verbal and verbal output. This session lasts 90 minutes and is based on one-minute skits done as live or video role-plays. Each skit focuses on a type of personality. It acts as a trigger to initiate discussion into the unique nature of such a personality and how a doctor should handle them in clinical practice. Up to eight triggers are shown during this session. A faculty from management school also takes part in moderating the discussion and in giving scientific input.

The second part is on "Seven common errors in clinical practice." This is again based on seven one-minute skits shown live or as a video record. Each skit depicts a common communication error committed by novices in the field or by negative role models. Each skit triggers a discussion on what went wrong and a demonstration of better ways of communication.

A session on medical ethics complements the former by shaping the attitudes of the impressionable interns. It is an intense session in workshop mode. Six to nine case studies highlighting important aspects of medical ethics are thrashed out in small group discussions. This is followed by a plenary session, wherein a member of each group presents the group deliberations to the whole audience. Ten faculty members guide the whole process with the help of a faculty from the law college who gives input on legal medicine.

Since 1993, eight batches of interns, totalling more than 500 have undergone this training. Their unanimous (100%) feedback has been to continue this "eye-opener" programme for future batches and that the session on oral communication was quite useful and relevant to their needs.

Summary

Health care is still based on fiduciary relationship that is fostered by sharing of ideas and feelings. Educators can and should empower the next generation of medical professionals by imparting effective training to them on communication skills and appropriate behaviour. It is obvious that a brief overview like this cannot mention all the details needed to prepare a training module on communication and behavioral skills. The bibliography appended below lists some very useful resources for preparing such a module.

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PROJECT REPORT

ITEM ANALYSIS FOR FORMATIVE EVALUATION IN PATHOLOGY

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INTRODUCTION:

Objectivising evaluation is becoming increasingly important in the field of education, both for summative and formative purpose, as has been again and again emphasised by guidelines published by several universities. One method of achieving this purpose is the widespread use of objective written items, much the most popular form of which is the multiple choice question (MCQ). With greater usage of multiple choice item for this purpose, the importance of item analysis for question banking has emerged and at present item analysis is largely used for creating a viable question bank of MCQs. In addition, many teachers use multiple choice item to assess class performance as a part of formative evaluation.

OBJECTIVES:

- To find out the lacunae in teaching and to suggest appropriate methods to improve teaching.

- To prepare an MCQ question bank (Item cards) of International standards.

- To objectivise evaluation.

MATERIALS AND METHODS:

A question paper of 70 multiple choice questions consisting of 38 single best response type (type A of Hubbard and Clemans) 24 multiple match type, 7 multiple completion type (type K) was prepared. The questions were prepared at the rate of 3 questions per week:

To avoid guessing;

1. An optimum time of 40 seconds for single best response type, 50 seconds for multiple completion type, 45 seconds for multiple match type was given.

2. All questions were made compulsory by allotting equal marks to wrong answer and unattempted questions.

A pre-validation of the question paper was done by 3 senior staff of pathology department.

A post-validation was done by the deviding the students into 3 groups based on their ranks into,

High achievers - I Group
Low achievers - II Group
Middle lever achievers -III Group

A table for each item was prepared as follows:

Item No. Key (Correct response:)

Options	No. selecting the options against	
	High achievers	Low achievers
A		
B		
C		
D		
E		
No response		
Total M		

Each question was analysed and the response of the high achievers and low achievers was compared. The items that showed areas which required emphasis, reinforcement or alteration in teaching methodology using other learning aids were noted. The discrimination index, difficulty level and distractor effectiveness were calculated as per the formula given below. The distractors which attracted less than 5% of the learners were removed and were substituted by functional

distractors.

(i) Difficulty index (facility value) (P):

$$P = \frac{H + L}{N} \times 100$$

H = No. of students answering the item Correctly in the high achievers group.

L = Similar number of in the low achievers Group or the poor students.

N = Total No. of students in the two groups (Including non-responders)

It is clear that the facility value is merely the pre-portion of total students in the two groups who have answered the item correctly. If, it is 40% it means that 40% of the students belonging to both high achievers group and low achievers group have answered correctly.

(ii) Discrimination index (d): was calculated for formula:

$$d = \frac{H - L}{N} \times 2$$

where the symbols H, L and N represent same values as before mentioned.

It is a measure of the ability of the item to discriminate between good students and not so good students, an important consideration when items are used for selection of students as in an entrance examination.

(iii) The distractor effectiveness for functionality:

Any of the distractor in the item which has not attracted even 5% of the total response is said to be a non functional distractor.

No fixation of pass level was done as the objective in this test was to find out lacunae in teaching and preparation of an MCQ bank of known discrimination and difficulty levels.

The items cards showing difficulty level and discrimination index etc., were prepared and filed. An MCQ bank of 70 MCQs of international standards was created.

With a difficulty index (p) 30-70% are acceptable, 50-60% are ideal, more than 70% are very easy, less than 30% are very difficult.

With discrimination index (d) 0.25 to 0.35 are good. More than 0.35 are excellent. Less than 0.2 are poor discriminatory.

DISCUSSION

Administration of an objective test and use of item analysis at the end of the period of instruction, sometimes even as small as a single lecture, has great advantages to the teacher. It enables him to get an active feed back from the students and determine areas which require emphasis, reinforcement or an alteration in teaching methodology perhaps using other learning aids.

Although every aspect of an instructional exercise cannot be reduced to multiple choice item, use of item frequently during class room teaching especially in area of problematic learning is indicated by previous exercise considerably helps the teacher in improving him and his student's performance.

Although teachers use MCQs frequently to assess overall class performance, the total score of the candidate on the paper rarely gives the teacher a good feedback regarding individual learning difficulties. Item analysis can over come this problem. This information can be used to improve teaching methods or resort to alternative methods, introduce audiovisual aids or use them more effectively or determine areas requiring emphasis and reinforcement. Item analysis also pinpoints the question on which good students are confused and which students did not attempt. Teachers consequently can examine the amount of time allocated to those areas and / or clarity of teaching.

CONCLUSIONS:

Frequent resort to administration of objective tests and performance of an item analysis routinely helps tremendously to achieve better teaching, better learning and in the long term better tests, while it must be admitted that this process will require a lot more effort on the part of the teachers, they will learn a great deal more about their teaching than anticipated and can also improve their MCQ items.

Editor's Note: For further details regarding questionnaire, the authors may be contacted.

BOOK REVIEW

COMMUNICATION SKILLS IN CLINICAL PRACTICE

(DOCTOR-PATIENT COMMUNICATION)

K.R..Sethuraman, Jaypee Brothers,
Medical Publishers (P)Ltd, New Delhi - 2001 pp 213,
Rs. 200/ISBN 81-7179-849-7.

Dr.C.H.Shashindran

Professor Sethuraman concludes his book by noting that students and young professionals should strive to attain mastery over communication skills to deliver prudent patient oriented health care. An apt ending to a book that should be read by all who have something to do with the care of the sick. This is particularly so for those who wish to not only deliver but teach the delivery of holistic health care.

In a little more than 200 pages comprising of three sections the author has succinctly dealt with issues that he could easily have done justice in a book four or five times the size. That I feel is the beauty and also the chief limitation of this work. I would rather refer to this book as a capsule containing the distilled wisdom of quarter century of patient care and clinical teaching.

This book is divided into 3 sections namely Core skills, Clinical applications and Beyond communications. The author has systematically dissected out the various components of the skill of communicating with patients such as questioning skills, listening skills nonverbal behaviour etc. At the end of each of these there are suggestions to the teacher on how to inculcate these skills in their trainees in the form of video triggers, role play, simulation etc. There is also suggested reading at the end of each topic to help readers who seek more.

The practical exercises at the end of each topic will help teachers of health professionals to device scenerious and vignettes in the setting of an O.P.D. or ward to make their teaching more interesting, meaningful and relevant.

The author has taken pains to include certain areas of medical education that have been benignly neglected in the traditional medical school curriculum. These include chapters "Dealing with chronic Disease and Dying", "Religion, Faith and Culture in Health Care ", "Communicating Prognosis Hope and Risk"etc. When faced with the task of breaking bad news many a young professional finds himself in a difficult situation. This work will facilitate handling of some of these difficult areas of communication.

I would like to conclude that this book will help to fill a long felt niche in the curriculum of the health professional. A must for anyone who wants to practise not just the science but also the art of healing.

HUMOUR SECTION

GO BACK TO THE FIRST SLIDE

K.Chandrsekaran Nair

The presenter thought that he should present a paper. That too in a national conference. His friend told him that he should have slides. He put all the matter in twenty slides and included a few figures. On the previous day of the presentation his friend told him that double projection is more fashionable. Presented in his eagerness to make the presentation more attractive, jumped into that idea and started arranging the slides in two groups. Then he realized that the sequencing is not good. He thought of putting certain sceneries and flowers. Each subject slide had an accompaniment of picture slide. On the day of presentation, he was a bit late due to the previous day's banquet. The presenter thought of arranging the slides just before the presentation. Everything was OK. The projectionist put the slide trays on both the projectors. Both were linear trays. Due to lack of space the projectors were tilted too much. The projectionist has agreed to change the slides for the presenter. The presentation started. The presenter signaled for the first pair of slides. Unfortunately on one projector, the button pressed was that of the reverse. Due to the abnormal slope the liner tray slipped back and all the slides were dropped. There was no serial number. The presenter had to stop his presentation and rearranged everything. On restarting it was found that a few slides were inverted. The presenter apologized profusely and asked the spectators to imagine that the slides were properly placed. Most of the time the spectators were looking at the picture slides. In fact those slides served as distractors. Some of the slides were in the horizontal format and some other were in the vertical. The

projectionist had to adjust the zoom lens frequently to keep the image within the screen. The presenter was provided with a laser pointer which was never switched off. With every gesture the presenter made the laser beam to travel and across the audience terrorizing many of them and make them seek shelter behind the front row spectator. The presenter and the spectators heaved a sigh when the presentation came to an end.

Perhaps this may be an exaggerated version of what is happening in conferences. But you cannot deny that these are common sights in scientific congregations. A few tips are given below which would improve the quality of your presentation.

1. The image size should be 3m x 2m so that letters would visible for at least 10 metres. The first row of seats should arranged 3 metres away from the screen.

2. In letter slides, maximum number of words permitted to 25 arranged in seven lines.

3. Tables can have three columns, pie diagrams can have five segments and graphs two curves.

4. If you can read a slide held one foot away from your eye, that has got better projection quality.

5. Avoid vertical data presentation.

6. The message of the slide should reach the audience within 5 seconds

7. Keep the slide for 40 seconds

8. Avoid irrelevant pictures

9. Avoid double and triple projections if not urgently needed

10. Use preview rooms.

11. If you do not know how to operate the Projector seek the help of the projectionist.

12. Switch off the laser pointer when not in use.

13. If you want to refer to a previous slide, keep a duplicate one.

14. Avoid very old slides

15. Avoid text book copies.

16. Never apologize for the bad quality of slides, avoid using them.

WEB LINKS

Free Access to Medical Literature -

www.medicalstudents.com

Medical students of 21st century is a lucky lot! Just log on to <www.medicalstudents.com> and see for yourself the range of textbooks and other literature available on the Web for free browsing.

www.freemedicaljournals.com

The Free Medical Journals Site is dedicated to the promotion of free access to medical journals over the Internet. Within the next two years, the most important medical journals will be available online, free and in full-text. The access to free scientific knowledge will have a major impact on medical practice and attract Internet visitors to these journals. Journals that restrict access to their Web sites will lose popularity.

The home page <http://www.freemedicaljournals.com/htm/index.htm> leads to index pages of your choice - alphabetical or subject wise. More than 600 journals are now available; it is expected to cross 1000 mark in 2002. Even journals like "Circulation" that shut you out if you try direct access, are browsable through this site using the following link <http://216.150.20.30/htm/link.cfm?id=2518>

POEMs (Patient-Oriented Evidence that Matters)

Each month, the POEMs editorial team reviews more than 90 journals of interest to primary care physicians, and identifies articles you need to know about to stay up to date. We call these articles POEMs (Patient-Oriented Evidence that Matters) because they address common primary care problems, report outcomes that matter to patients, and, if valid, require us to change the way we practice. The collected reviews are available online <www.jfponline.com> - the on-line version of the Journal of Family Practice.

All the medical teachers like us must get familiar with these sites. Then we can give challenging Web assignments to interested students.

RECENT ACTIVITIES

1. Interns Orientation Programe -2001 was held from 1st to 3rd February 2001.
2. 44th National Course on Educational Science for teachers of Health Professionals was held from 19th Feb. - 1st March 2001
3. Medical Education Conference (MECON 2001) of Consortium Institutions and Alumni Association of NTTC was held from 10th to 11th March 2001.
4. Conducted Off-site Workshop on "Introduction of current concepts in Medical Education" at Coimbatore Medical College, Coimbatore from 17th to 21st July 2001 sponsored by Tamil Nadu Dr.MGR Medical University, Chennai.
5. 8th P.G. Orientation Programme on Research, Ethics and Communication Skills was held from 8th to 14th August 2001.
6. 45th National Course on Educational Science for Teachers of Health Professionals was held from 17th to 27th September 2001.
7. Dr.K.R.Sethuraman, Head, Dept. of Medical Education had delivered a lecture on "Doctor - Patient communication" on 11th October 2001 at AFMC, Pune.
8. Workshop on "Hospital Contingency Plan in the event of incidence affecting large number of people" held on 6th and 7th November 2001.

Forthcoming Activities

1. Interns Orientation Programme - 2001 on Quality Care to be held from 23rd - 25th January, 2002.
2. 46th National Course on Educational Science for Teachers of Health Professions to be held from 18th - 28th February 2002
3. Establishing Tele-conferencing between JIPMER and Dr.M.G.R. University on a regular basis.

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