REFLECTIONS ON CLINICAL TEACHING

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In recent years medical education appears to have stimulated considerable interest from all quarters of the profession. The emphasis, however, has been mainly on the criteria of student selection, and revision and reorientation of the medical curriculum. There has not been sufficient thought on actual teaching, much of which seems to have been taken for granted. Yet it constitutes the machinery upon which the future of medicine largely depends. Unfortunately, teaching *per se* is not widely accepted as a necessary and important part of medical education and much of the present deficiency in our training methods may well be a reflection of this. Evidently a particular kind of teaching with special relevance to general principles is urgently required not only to fill the long-felt need, but also to meet the ever-increasing demands on students. Consequently it was thought desirable to re-examine some of the methods used and to re-emphasize those that may mean much to the progress of medical education and student knowledge.

Shortcomings

Any shortfall in our present system may be the result of our taking for granted the actual process of imparting knowledge. A blueprint curriculum is presented to the teachers and students without adequate liaison between them. There is a constant attempt to revise the curriculum and to make it as comprehensive as possible with due regard to the changing pattern and advance in medical science and practice.

Similarly, methods of student selection are constantly improved. A similar parallel is not evident with regard to the selection of teachers. The position therefore is that many schools are quite content to have a good curriculum presented to a highly selected student group with teachers to guide them in a situation where learning is expected to take care of itself. It is therefore questionable whether the present criteria for appointments are the best, wherein the ability and desire to teach do not appear to be primary determinants. Furthermore, there is no organized training or apprenticeship for those contemplating a teaching career, as this is thought to be unnecessary for teaching at a university.

The Clinical Teacher

A clinical teacher should be a good clinician and a keen teacher with an interest in research. Furthermore, it is desirable for him to have had a period of training in the art of teaching. These qualities are complementary and have an important bearing on the end-product of undergraduate education. Dedication in teaching is as important as dedication in medicine. Enthusiasm and absorbing interest in teaching soon reflect themselves in the interest displayed by students in their learning.

The teacher should have an especially competent command of the language medium used and should be able to express himself fluently and lucidly. He should also possess a dynamic personality and should gain the respect and admiration of his students with regard to his competence, knowledge, personality and honesty. His bedside manner should be impeccable. That a clinical teacher should be a good clinician is self-explanatory, but there may be a division of opinion regarding his involvement in research. As students tend to emulate a good teacher, it is relevant that he should in addition to his teaching duties also make original contributions, provided that this does not interfere with his teaching programme.

The training of teachers is a recent concept that is receiving more and more prominence. It is important to appreciate why such training is necessary. Basic psychology in teaching and general principles are best appreciated in an organized training programme. What to teach, how to teach, and the purpose of teaching, are outlined in the training. When institutions for the training of teachers are established and teaching is made more attractive as a career, the men most suited for this vocation are bound to come forward more readily. As the specialty of teaching becomes firmly established, conferences on training teachers and methods of teaching are likely to be held. Such exchange of experience will prove valuable, and progress in medicine will then be matched adequately with improvement in the quality of teachers and teaching.

PRINCIPLES IN CLINICAL TEACHING

There are certain general principles in clinical teaching that are worth outlining. For example, it is important to emphasize that each patient is a unique biological phenomenon of a kind which makes it permissive to regard him as an experimental subject not analagous to a guinea-pig, but as relevant to his emotional behaviour and therapeutic programme. Implicit in this consideration is the fact that his response to treatment is not easily predictable and may have to be modified or altered from time to time depending on his reaction as an organism and as a human being.

As it is not possible nor desirable for students to know everything in their syllabus, it is incumbent on the teacher to refrain from spending an inordinate amount of time on teaching facts and figures. He should instead teach them how to learn. In their early clinical training they are thus placed in a situation where their main aim is to learn *how to learn*. This principle cannot be emphasized too strongly as medicine is a lifelong study and learning is an art that can be adequately acquired only through proper guidance. Since memory is so important in medicine, consideration of the techniques of memory training may prove valuable. Clinical memory training is dependent on keen observation as distinct from seeing and looking. It is the duty of the clinical teacher to point out actively the nature and importance of clinical observation, particularly when suitable examples present themselves.

In a clinical teaching situation all relevant information should be obtained from the students. The teacher's aim should be to guide the students along a logical path. A good teacher extracts as much information as possible from the students and gets the best out of them. This requires patience and understanding on his part. Such active participation by the students permits them to think for themselves. Although it is very tempting to offer answers that are not forthcoming from students, such temptation must be resisted wherever possible, as the benefit to them is not as great as is commonly believed to be the case. Instead a stimulating atmosphere should be created and discussion built up to a height and problems presented at various levels for students to solve.

Some of the answers may be obtained by careful history and thorough clinical examination, others by special investigations and reference to suitable literature, and still others by observing the natural history of the disease. Some, of course, may remain as problems and challenges for students to bear in mind, both as an appreciation of the fact that much is still unknown in medicine, and that they need to be investigated. Such challenging situations may stimulate students to do research at a later stage in their careers.

This method of teaching is bound to have a lasting effect on students and on medical education. Students need to be taught the value of committing themselves to diagnosis on every patient they see. Three areas of diagnosis merit attention, viz. nutritional state of the patient, his emotional behaviour, and the specific disease process. The first two areas are either not appreciated, not known or neglected. The third area may be difficult either because it is obscure or non-existent. However, the most likely diagnosis is mentioned first and other conditions enumerated in order of probability. Such emphasis on clinical diagnosis will prevent laziness and loose thinking and it will improve their diagnostic acumen as their experience accumulates.

At each teaching session there should be a plan to drive home one or two important but simple lessons in clinical medicine. These lessons should be highlighted as the tempo of the discussion rises. Such lessons, properly planned and delivered, will leave a lasting impression on the students. It is believed that these are more important than the dissemination of a volume of facts. Facts can easily be obtained by the students, provided a principle is enunciated relevant to the clinical discussion.

While it is generally accepted that history is important in clinical medicine, it is unfortunately not given the emphasis it merits. Valuable lessons may be learnt when entire sessions are devoted to history taking. This requires patience and painstaking care but the reward is great. The teacher should guide and prompt students at appropriate times when they appear to be going 'off the beam'. The need to listen to patients, to learn when to ask leading questions, how to extract information from a disjointed history, etc., can be taught at such sessions. The taking of a history also has an important therapeutic function. It allows patients to get things off their chests. Students should be taught how to be good listeners, how to be patient and sympathetic, when to be firm, when to be indifferent and almost neglect the pampered patient, etc. These are not mere refinements in history taking, and they should have their foundation laid early in the students' careers.

Physical Signs

Thorough clinical examination and eliciting of physical signs are as important as history taking. It is insufficient to tell students what signs to elicit and where to find them. They should be regularly asked to elicit and demonstrate the signs and all errors immediately corrected. This is surely the basis for sound clinical training. Brief historical notes on physical signs lend more interest to discussion. By the same token it is inexcusable to gloss over patients whose main symptoms are psychogenic or psychosomatic in origin and in whom few physical signs are present. These patients are in fact very suitable subjects, for valuable lessons can be learnt which are very much a province of clinical medicine. This neglected field is manifested later by practising doctors in their poor handling of such patients.

Planning the Session

With regard to the actual running of the clinical sessions, the teacher can decide on the adequate number of students per group, the length of each session, the time and number of sessions, etc. The sessions may be held in the ward, sideward, outpatient or clinic room and they could be varied according to the needs and demands of the students. There need be no hard and fast rules relating to these matters. Suffice it to say that a small number of students per group are convenient and an average of 8 is suitable.

Morning sessions are preferable when everyone is fresh and alert. It is also desirable for students not to sit during the proceedings as there are many pitfalls to this apart from the hazard of inducing drowsiness, lack of alertness or frank sleep. If they are tired physically, they are likely to be tired mentally and this is an indication for the proceedings to cease. Clinical meetings should be dynamic physically and mentally, with an atmosphere of alertness pervading the students and teacher.

Examinations and Recall

It is amazing how much a candidate learns from examinations in clinical medicine. What is more astonishing is that the candidate seldom fails to remember what he has learnt during such examinations. Questions are asked to which the candidate has to find an answer. If he fails to do so during the examination, he eventually finds out later and does not forget it. These examinations offer many lessons for the teacher. The techniques can be usefully employed in routine teaching sessions.

It may prove profitable to have recall and recapitulation sessions at regular intervals. This will permit students to become actively involved in their work, and it will also serve as a guide to progress and further planning of teaching.

CONCLUSION

No matter what the criteria for student selection and teaching appointments, and no matter what the curriculum and pattern of teaching, medical schools will continue to produce doctors, and there is no indication that the quality of doctors will be in any way inferior to their predecessors. A plea is, however, made to evolve a technique in teaching that will pave the way for doctors to have an appreciation and understanding of a lifelong study of medicine. To assist in attaining this standard, the training of teachers is desirable.