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PROBLEMS OF PRECLINICAL EDUCATION

by

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The preclinical life in medical schools presents a problematical issue with more than one aspect to be considered. If one is both frank and ready to face facts he would not be far from being correct in holding the idea that most if not all of the medical schools are unfortunately segregated into two populations: those who live modestly in the basic science buildings and those living joyfully in their paradise: the hospital.

The hospital people attain their goal by achieving a high brow status in society: by practice they get money, by curing patients they gain their prestige and by contact with high society personnel they become ever-influential. On the other hand basic science people get their bare necessities of life, their modest prestige and limited influence among guinea pigs, albino rats and other experimental animals.

This introduction to such a vital subject is not off the point. As a matter of fact, this segregated educational system has a definite deleterious effect on the morals of our young blossoms: the medical students in their

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early years of medical education. It is also really a wonder how can people sharing the same interest and working towards the same goal lie so widely unintegrated. The outcome is naturally the obsolete stuff one always recognizes in preclinical curricula.

The following are suggestions in the way of improving this status and trials to close this wide gap in medical education.

1. Basic Science Teaching in Hospitals

A youngster dreaming always for a fruitful clinical career is ever-bored throughout the years he spends before entering his paradise, the hospital. Logically, there are neither limitations, nor contra-indications for implementing some of his preclinical studies under the auspices of clinical teachers in the hospital. That will give him satisfaction and persuade him to more efficient study. The value of integrating the pre-clinical with the clinical knowledge is beyond doubt.

An experiment on such grounds, is current in our new medical school at Mansoura in Egypt. The students in practical pharmacology are taken to the hospital in groups. There they give the drugs to patients e.g. giving saluretics to oedematous cases and on the second morning they gauge the effect of such a drug on the size of the legs and on the amount of urine. One cannot imagine the thrilling effect of such a simple experiment on the behaviour of the students.

In a similar way, watching an E.C.G. record, measuring the blood pressure or assisting in the estimation of the lung function, tighten the basic physiological data, in their eager minds.

Undoubtedly, watching an ophthalmologist drawing a visual field for a patient is worth many lectures on the subject.

Even anatomy can be revolutionized, by visits to surgical theatres. Anatomy of the living body is somehow different from that of dead bodies seen in the dissecting room. The student will thus be acquainted with the sprouting, jerky arterial bleeding the smoothly effluent venous bleeding, the tint and texture of living tissues.

Trying to evaluate a hemogram, or a chemical report, will enforce the student to memorize the normal standard levels for purpose of comparison.

The foregoing illustrations are neither exhaustive nor exclusive of the situations required for such an implementation.

2. Appetization of preclinical teaching

On returning back with our memory to past early University days, one can recollect, how crude and how rough were and still are the preclinical studies enclosed within their concrete academic shells.

It is our sacred duty as medical educators to make such studies as palatable as we can. To my mind there is only one valid way to amend this huge mishap in medical education. It is by the vaccination of anatomy with surgical procedures, enriching physiology with symptomatology of disease and fortifying pathology with clinical applications. Then, the basic scientist can present his crude bitter material in a well done palatable way.

Besides its gratifying effect on both student and teacher, comparing the normal with the abnormal is one of the basic ways in pedagogy. To compare and contrast is a procedure of adding knowledge in the cerebral cortex.

Of course that must not be taken to the extreme. The anatomist is not supposed to teach surgery, but just to show the relation between the two subjects. He has to clarify the importance of good anatomical knowledge to be a successful surgeon. Adding some surgical condiments to the indigestible anatomical knowledge will facilitate its entrance via the obstinate routes to memory centres.

3. The Seventies and a New Era of Basic Sciences

The world during the last three decades has been running a big race in every aspect of terrestrial life. Man has gone far beyond that, exploring the moon and unveiling the mysteries of other planets.

The outcome, was a tremendous amount of knowledge and a variety of advances in all sciences including the medical. That threw a big task on medical education, as we have always to keep abreast with every phenomenon endangering our health. Accordingly, the medical in the seventies must be a new type quite different from the old one of our generation.

The change must include the abolition of the old methods of teaching and the old methods of examination. The new teaching methods must enable the poor kids to devour all the old well-established facts of medicine, in addition to the new techniques and canons. The use of audio-visual aids must not completely substitute the classical and valid practical classes, by means of which the students discover facts by themselves.

4. Integration in the Under-graduate Teaching of Preclinical Studies

Although this question has been discussed many times, not a single medical school in the Middle East to my knowledge has made a trial towards

its application. It is really a return to the ancestral methodology in medical education, when everything was taught by one single educator. The only recent modification will be that a team of specialists will work together in teaching the subject from different aspects.

The recent attitude claims that too much details is bad for the under-graduate. A basic doctor has to deal always with the body as a united specialization must be left for consultants and research workers.

Two objections are always raised against integration in medical teaching. The first is that it needs too much staff. Secondly and more important is that the time-table will not be fixed for the different departments. Educators are always satisfied to have fixed teaching hours per day per week per term. This is impossible in the integration system. However, one must always sacrifice for the best.

5. Recruitment of Basic Science Teachers

Recruitment in that field has two dimensions quality and quantity. Improving the quality of basic science teachers is the easiest of the two. The junior staff can be sent for training in a well organized centre in the Middle East or abroad.

The difficult problem is how to encourage medical men to specialize in the preclinical branches. Their shortage in teachers is a well-established fact. The graduated scholars in any medical school seek ~~money~~ and prestige in the clinical branches where private practice is flourishing. Therefore, solving this problem has only one solution: a satisfactory payment and stopping their solitude in their segregated departments.

Many incentives are suggested for amelioration of the socio-economic situation of our preclinical scientist. First of all, it is to give him priority in promotion and a sizeable extra pay. Moreover, a piece of successful genuine research work sprouting from his department should be given full interest. The scientist can then be given the necessary funds to continue his work without any handicaps. He must be provided with current periodicals, recent publications and revolutionized apparatus. That will quieten his eager mind for research.

In a nutshell, these and other incentives will push forward his capacity, clarify his ingenuity and last but not least raise his moral and give him satisfaction.