LETTER TO THE EDITOR

REORIENTING THE BASIC SCIENCE DEPARTMENTS IN OUR MEDICAL COLLEGES
A POSSIBLE LINE OF ACTION

Sir,

Most, if not all, of the 100 and odd medical colleges in our country suffer from a shortage of competent and enthusiastic teachers in the pre- and para-clinical departments. The shortage is more obvious in terms of quantity at some places and in terms of quality at others, but only the few Institutes at the top might escape it altogether. We have long been complacent enough to believe that first-rate medical graduates do not opt for these basic subjects simply because the monetary reward is so poor as compared to clinical practice which has the compelling attraction of a glittering gold-mine. The conclusion has been that we should remain contented with what ever left-overs we get. The several revisions of salaries in recent years and the restrictions on private practice in many places have hardly changed the situation. A re-thinking on the whole problem is, therefore, very much called for. It is seldom thought that perhaps there are other reasons too, long over-looked, which discourage the young doctors from joining our Departments. Two important ones seem to be:

(1) Lack of job satisfaction, and

(2) Very limited job potential of our post-graduate degrees.

When a new medical graduate, fresh from his internship, joins one of our Departments, say physiology, what does he usually do? Either meddle with frogs in the experimental lab where the equipment is often poor in looks as well as in function, or just tabulate the students attendance. Or perhaps take a routine demonstration on examination of the urine. For the rest of the time he seems to be listening to the endless discourses of his seniors on everything from "cabbages to kings". No wonder that he finds little professional interest, little academic satisfaction, and hardly any excitement in such work. Either he quits as soon as a better job comes his way or else gradually sinks into a state of indifference and lassitude.

But let us suppose that he stays on and takes up his post-graduate studies in the subject. There is hardly any training worth the name for him except going through a text-book and doing a few stereotyped, obsolete experiments the sole purpose of which now seems to be to test the students in the examination. When he finally gets through, his post-graduate degree makes him eligible for nothing except teaching the same subject to the medical students. His clinical background has faded but he has acquired little new by way of vocational skill. It is natural, therefore, that as soon as the available staff positions in the Department get filled-up the inflow of post-

graduates also dries up. It is common experience that several examinations may be passed over without a single candidate appearing. In other words, no one (except perhaps a non-medical person) thinks of doing post-graduation in the basic subjects unless he has already got into the department for good, and this leaves our post-graduate facilities very much underutilised.

After giving some thought to all these problems, we have come to one possible solution: Every basic department could gradually develop a special unit devoted to some applied clinical extension of the subject. The emphasis will have to be on *doing rather than on advising, on practice rather than on preaching.* Such a unit would provide facilities of a more advanced nature for patient-care in this particular field. At the same time, it would provide valuable human material for basic research which would be meaningful. Initially, help will have to be taken from other Departments, particularly the clinical ones, but the over-all responsibility and initiative should be ours. Gradually these props could be dispensed with, except for one or two clinical associates.

Some possible areas of such specialised growth for the basic departments could be the following, although many more could be considered in consonance with the local condition:

(A)	*ANATOMY*	...	Genetics and Genetic diseases. Physical anthropology and Human Growth disorders. Forensic Anatomy.
(B)	*PHYSIOLOGY*	...	Human reproduction biology, Andrology, Fertility disorders. Nuclear medicine. Medical instrumentation & electronics. Psychophysiology-yoga. Evaluation of mental functions. Experimental psychology.
(C)	*BIOCHEMISTRY*	...	Endocrinology Nutritional diseases & dietetics. Metabolic diseases.
(D)	*PHARMACOLOGY*	...	Drug evaluation & clinical trials Research methodology Toxicology.

A small unit would thus develop in the Department where patients would come (referred in the beginning, but on their own later on) and would be examined, investigated through a battery of tests, advised, followed-up. Post-graduates would be posted to work here regularly for some hours, besides taking part in the usual teaching and other academic activities of the Department. Extensive theoretical and practical training would be given to them in this particular field and this would form a part of their examination, to be mentioned in their certificate also as a specialisation. The training will have to be such that it makes them independently capable of handling the theoretical/laboratory/clinical aspects in good measure. This set-up would also indirectly help the undergraduates. They would soon find that their teachers are speaking in the class-room with some personal experience and authority, rather than merely teaching from books.

Several advantages could accrue from such a scheme:-

1. It would improve man-power utilisation in the Department. The training as 'doctors' would be used to some advantage.

2. It would provide an alternative to the so-called sophisticated research and may also be purposive enough so as to raise the prestige of the department amongst students and the community.

3. New and young teachers in the department would find something interesting to do which would hold their attention.

4. Post-graduates, one could hope, would find themselves better equipped and more confident. They could even go back to practice or look to other jobs, besides teaching, in view of their continued clinical oriented training in a limited field.

5. A great impetus would be given to research because of contact with the local medical problems and access to valuable human material. Thus, there would be a direct link-up between laboratory research and clinical problems, so vital for our country.

Of course, wherever the departments already have well established research programmes to keep themselves usefully occupied and growing, nothing more need be done. But others could work upon this plan. Difficulties would, no doubt, be there. Diffidence and complacency would have to be shaken off, criticism and set-backs would have to be tolerated, hard work and much brushing up of knowledge may be necessary. The whole outlook and routine of the Department may need a refreshing change.

We in the Physiology Department at Udaipur have been trying this approach in the field of reproduction physiology and andrology. Others may also like to try, exploring other areas.

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