

## EDITORIAL

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## THIS THING CALLED RESEARCH — A LOUD THINKING IN RELATION TO MEDICAL EDUCATION AND DERMATOLOGY

Research is a scientific investigation of truth and it reflects the finest thinking of a problem by a scientifically oriented human mind. It can be most satisfying and rewarding to the self as well as to the society.

### *Organisation of research in our country:*

In 1911 the Indian Research Fund Association (I. R. F. A.) was set up by the Government of India with the sole aim of sponsoring and co-ordinating medical research in the country. After Independence, in 1949, the organisation was changed into and renamed "Indian Council of Medical Research (I.C.M.R.). The I.C.M.R. works as an autonomous organisation. As an apex body it is primarily responsible for planning, organisation, implementation and co-ordination of medical research in the country. Dermatology has not received much attention at the hands of I.C.M.R. and the involvement of I.C.M.R. in the promotion of research in Dermatology, Venereology and Leprology is negligible. May be the dermatologists are themselves to be blamed for this apathy. Although the aim of I.C.M.R. is to build bridges between its permanent institutions and Medical Colleges, yet a lot remains to be done in this direction.

Research objectives in dermatology need to be defined by evolving a core

programme with due consideration for regional problems. It will require co-ordination at national, state and block levels.

Research in Dermatology should be done in all its aspects namely Fundamental research, Clinical research, Community research and Medical education. How can we aim to improve dermatological service to the community unless we have a cadre of well trained dermatologists. Dermatological care including care of venereal diseases and leprosy should become a part and parcel of General Health Care Programme at Primary Health Centre level.

Clinical research in dermatology should be directed towards many fields namely Communicable and infectious dermatoses, Occupational dermatoses, Nutritional dermatoses, Venereal diseases and Leprosy. Those spheres of our activity, which have a great bearing on Community Health Programme, should attract the attention of research workers in dermatology. Dermatologists should spread their knowledge by teaching the art of healing to general practitioners by arranging lectures and demonstrations through the College of General Practitioners of I.M.A. in liaison with Indian Association of Dermatologists, Venereologists and Leprologists (I A D V & L). There should be a

continuous evaluation of dermatological research projects based on feed back information from researches by the field workers.

Socio-economic aspects of chronic dermatoses need to be looked into. Man-hours wasted as a result of chronic dermatoses should be studied and remedial measures worked out.

#### *Financial aspect of research :*

In our country medical research is mostly Government or I.C.M.R. aided. Financial help for research can also be in the form of an investment or a research contract which means a purchase order for a specified result.

Money spent on Fundamental Research is not wasted because a particular piece of that research may find its applicability several years later and may pay huge dividends to the society. There should be no price tag on research.

Administrative control of research funds should be through a Medical Scientific Administrator, rather than a bureaucrat.

The dermatologist should, however, not shun medical auditing where tax payer's money is concerned. It should enable him the best use of public money keeping in mind the social needs of our people.

A research worker should be free not only from administrative worries but also from submission of unnecessary reports as well, so that he has a congenial atmosphere to work.

Research and Medical Education are interlinked and cannot develop independently of each other. In our country unity of medical teaching and research has to be maintained for economic reasons. We cannot afford, at this stage of our development, to siphon off many dermatologists into research

because they are badly needed for the dermatological care of the patient. However, a balance is to be struck between the two demands.

Career avenues for young dermatologists should be open to research, medical education and practice of dermatology with the option to move in any direction. Since the teacher, in his professional career, has to discharge simultaneously multifarious duties of a clinical consultant, teacher and research worker, it will be desirable to train the student accordingly from the very beginning. More jobs of dermatologists should be made available in Government and Private sectors.

#### *Postgraduate Education in Dermatology :*

Post-graduate Education in dermatology of a student should aim at four levels :—

1. Broadening of intellect
2. Deep insight into a problem
3. Independent line of thinking
4. Inculcation of team spirit

During the first phase of his growth a post-graduate should acquaint himself with scientific facts both of his own speciality and other related medical scientific fields so that he does not suffer from "tubular vision". His faculties are trained to have a wider, open view of scientific thoughts.

During the second phase the post-graduate student of dermatology should aim at deepening his insight into a problem. He should be intellectually "long sighted" and should not be suffering from "intellectual myopia". During this phase, he should learn and develop the faculty of critical analysis and logical reasoning.

During the third phase of his growth, which is the most difficult one, the teacher should help the postgraduate in

developing an independent line of thinking rather than following the hackneyed track, by stimulation and encouragement.

Team spirit is a must for the progress of any research and the student must inculcate this and develop a sense of camaraderie.

I will remind the post-graduate students of Dermatology the words of famous Russian Scientist, Ivan Petrovich Pavlov. He has said, "What would I desire for the youth of my country who are devoting themselves to science? First of all — Consecutiveness. I can never speak without agitation about this most important condition for fruitful scientific work i.e. consecutiveness, consecutiveness and consecutiveness. From the very beginning of your work train yourselves to be strictly systematic in accumulating knowledge. Study the ABC of science before you attempt to climb to its summits. Never proceed to the next stage before you have mastered the preceding one. Never try to cover up the shortcomings in your knowledge by even the most daring conjectures and hypothesis. No matter how much this soap bubble with its beautiful and ever changing colours may dazzle your eye, it will inevitably burst, and nothing will remain with you but confusion. Train yourselves to discretion and patience. Learn to do the rough work of science. Study, compare and accumulate facts. Perfect as the wings of a bird may be, it could never raise the bird aloft, if it were not supported by the air. Facts are air for the scientist. Without them you will never be able to fly upwards. Without them your "theories" will be useless efforts. But while studying, experimenting, observing try not to remain on the surface of facts. Do not turn into archivists of facts. Try to penetrate into the secret of their origin. Seek persistently for the laws that govern them.

The second is modesty. Never think that you already know everything. And no matter how highly esteemed you may be, always have the courage to say to yourself, I am ignorant. Do not allow pride to take possession of you. Pride will make you stubborn in cases where it is necessary to give way ; it will make you reject advice and friendly aid—because of pride you will lose sense of objectivity. Among the people with whom I work and whom I direct, it is the atmosphere that counts. We are all harnessed to one common task, and each propels it forward to the best of his power and ability. Among us it is often difficult to distinguish between "mine" and "thine", but our common task progresses all the more as a result.

The third is passion. Remember that science demands of a person his whole life. Even if you have two lives to give, that would still not be enough. Great effort and deep passion are required of a person by science. Be passionate in your work and investigations."

#### *Post-graduate Medical Teachers :*

Teachers in Dermatology have a special role to play in a developing country like ours. They can raise the standard and status of dermatology vis-a-vis other branches of medicine by dint of their hardwork. More interest should be taken in teaching of dermatology to the undergraduate so that they feel interested in the subject and the speciality gains by attracting more post-graduate students who will, in turn, form the future research workers, teachers and practitioners of dermatology. In other words, student motivation for a professional career in dermatology should begin early. A teacher plays an important part in student motivation. He should first demonstrate and then preach the ideals of the profession for which he is offering training to his students. To quote Rabindra Nath Tagore—"A teacher can never

truly teach unless he is learning himself. A lamp can never light another lamp unless it continues to burn its own flame. The teacher who has come to the end of his subject and who has no living traffic with his knowledge but merely repeats his lessons to his students can only lead their mind, but cannot quicken them.

Truth not only must inform but also must inspire. If the inspiration dies out and the information only accumulates then truth loses its infinity. The greater part of learning in the school has been a waste, because for most of our teachers their subjects are like the dead specimens of once living things with interest, with which they have learned acquaintance but no communication of life and love."

The teacher must inculcate a sense of team spirit for research amongst his students, and the student should develop the attitude of a true scientist who considers his work as *I' art pour I' art* (art is for art's sake) and nothing else matters to him. The golden word of Pavlov should keep on beckoning him on the road to progress.

Post-graduate teachers of dermatology have a special responsibility to their profession. They should do research in methodology of teaching of dermatology. There is a need to give new look to educational methodology as far as dermatology is concerned. Curriculum in dermatology needs to be expanded and modernized so that more time and effort is spent for teaching of dermatology to undergraduates in medical colleges. In other words, Dermatology, Venereology and Leprology require both vertical and horizontal expansion and integration in the undergraduate curriculum. The clinical period of training of an undergraduate in the above discipline of medicine should be increased. This can be achieved only if teachers in Dermatology are actively associated

with Indian Medical Council while preparing various curricula and syllabi, for the undergraduate and post-graduate courses.

A Dermatology laboratory on the pattern of Guy's Hospital, London, should be established in each post-graduate Department of Dermatology. The students can learn with the use of slides, models and specimens, Cine films, Taped Records, Closed Circuit Television, Programmed instructions, Set problems and exercises.

An old Chinese proverb states "if we hear a thing we forget; if we see a thing, we remember; if we do a thing, we know." Hobson added the fourth maxim, "if we discuss a thing, then we know that we don't know". The above saying emphasises the value of a "Dermatology Laboratory" for teaching purposes. I will remind myself and my colleagues "Teacher Teach Thyself".

#### *Present Situation of Research and Medical Education in Dermatology:*

The present situation of research and medical education in dermatology is very disheartening. Medical education to an undergraduate consists of few lectures and demonstrations and post-graduate education in dermatology is wanting in many things, especially in men and material.

At the moment, research in dermatology is mostly confined to the medical colleges where research is conducted as a part of thesis during the training of a post-graduate student or as I.C.M.R. sponsored research project.

At present research topics on varying subjects are given by the guide who has not developed a research theme of his own, with the result that research is not a continuous thread. A new technique introduced is not carried on later because the prime investigator has left the scene after obtaining his M.D.

A post-graduate student considers thesis as a passport for attaining M.D. and is usually oblivious of the aims of thesis. The aim of any thesis is to produce a doctor who is well oriented in methodology and techniques of research, has attained critical thinking and scientific temper with unprejudiced appraisal of literature and has become an independent investigator later on. Authenticity in research work is absolutely essential. That is why the subsequent research worker is unable to pick up the thread and to carry out the research on the topic already done. To my mind this is an important factor which is going to weigh when our research works are assessed at International forums. Hence, the young dermatologists must follow the ethics of research as laid down in the Declaration of Helsinki.

*Factors impeding research and medical education in dermatology in our institution :*

These are (1) lack of will to work and improve the prevailing situation (2) The interstaff rivalries and jealousies and lack of spirit of camaraderie (3) Lack of liaison between the pre-clinical and clinical departments (4) Lack of facilities for research namely funds, equipment and chemicals (5) Improper maintenance of the equipment (6) Lack of proper atmosphere for research work (7) Deficiencies in undergraduate and post-graduate teaching of dermatology, with a poor projection of the image of the speciality amongst the students and public at large (8) Lack of library facilities (9) Lack of facilities for photo copying and illustration (10) Lack of application of basic technology to the advancement of Dermatology.

At present most of the time of a post-graduate student and his supervisor is wasted in creating suitable facilities for the research work.

*Role of Indian Association of Dermatologists, Venereologists and Leprologists*

I would envisage a more dynamic role for I.A.D.V.L. in matters pertaining to teaching of Dermatology, Research and Dermatological care of our people. It should seek to have its representatives in various policy making bodies of Government of India at national and state levels, Indian Council of Medical Research and Indian Medical Council so that a place of pride is given to the speciality of Dermatology. It should create a cell or working group which should try to attain the above objectives.

Weaknesses mentioned above have their effects on the quality and quantity of research, medical education and practice of dermatology. To my mind the above analysis and remedial measures taken by all of us could contribute a lot towards improving the image of Dermatology as a speciality.

Winding up the topic, I must express my sincerest gratitude to my learned colleagues for patiently bearing with my pontifical views on the subject which I would like to end with a quote from Rudyard Kipling.

“I keep six honest men,  
They taught me all I know.  
Their names are What, and Where  
and When,  
And How, and Why, and Who.”

— F. Handa  
M.D.(Med.), M.D.(Derm. Ven.) D.T.D.  
Professor of Dermatology  
Govt. Medical College  
Patiala (Punjab)