

RESEARCH AND POSTGRADUATE INSTITUTIONS

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In this part of the world the word research is understood only in its very restricted sense. It is almost synonymous with discovery and invention. It evokes an image of elaborate facilities with expensive, and almost intimidating equipment. Hence the oft repeated statements that (1) research is a luxury we cannot afford, (2) why not just borrow the results of research done elsewhere and (3) research can wait; there are other things which have a higher priority. One of the reasons why research has not found a base in some countries is the lack of appreciation by those at the helm of affairs of the broader aspects of research as a means of developing and sustaining a critical approach to problems. One of the aims of any scheme for promotion of research should be to promote an appreciation of the wider meanings of research. Research is a means and not an end, a tool or method for developing the critical thinking faculties of an individual, an essential ingredient and stimulant for continuous development of a professional person, a frame of mind and method of approach toward solving problems. These problems may be as small and immediate as how best to treat this patient, or as big as how to eradicate addiction from the country. The constraints to research are not necessarily the lack of facilities, they are the limitations of innovative thinking and approach. Medical literature is replete with papers which are landmarks and which have been produced by a reappraisal of carefully kept patient records. Looked at in this sense, it is the absence of research which is a luxury that no developing country can afford. Research is mandatory for solving our problems, and preventing us from making costly mistakes in the allocation of scarce national resources. The enslavement and exploitation which occurs as a result of not doing research is seldom realised. No scheme for promotion of research or research manpower development can work in isolation. It has to be a part of an overall plan to create an atmosphere where research is encouraged. The role of the postgraduate institutions in the development of research manpower can only be a part of a total scheme. Such a scheme is outlined below:

- 1) Systematic efforts to make the decision makers understand the need for promoting research and the need for professionals who are trained to critically evaluate their own and their colleagues' work.
- 2) Training of all levels of health professions in appreciating
 - (a) the value of accurate observation and recording it properly.
 - (b) reporting of unusual and unexpected findings and associations.
- 3) Training of all physicians in selected methods of clinical research and an ability to pick out the very poorly designed studies.
- 4) Encouragement of medical students who wish to take up a problem for research.
- 5) Research as a requirement for all postgraduate qualifications. The quantum and the degree of sophistication of the research being variable for different qualifications.
- 6) Selection of promising medical students and postgraduates with potential for full time research. They will then be given additional training.

7) Requirements that all teachers of medical college show evidence of continued research activity. Postgraduate institutions are there to produce specialists in various fields. From amongst these will come the future consultants, teachers and full time research workers (Specialists in research). All of them need basic training in research though each category will be involved in research of a different type and the time they will devote to it will also be different. The components of training in research that all categories of physicians doing post- graduation will require are:

- 1) How to frame objectives/hypothesis.
- 2) How to review pertinent literature.
- 3) How to design a study.
- 4) How the analysis of the results will be done.

5) How to carry out the study and,

6) How to present the results (final report, paper, verbal presentation etc.).

For those wishing to be consultants the study would be a field study or a review of a series of patients of a particular disease with no insistence on doing their own laboratory or experimental work. For those wishing to be teachers, the requirement of research will be more. Here, there should be an insistence that some experimental or laboratory work is done by the candidates themselves. For those wishing to take up full time research the nature of the problem and the work would of course be more demanding. The separation of these three categories at the time of entrance into the postgraduate institution will obviously be done by the choice of the degree for which the candidate is enrolled. The need for research as a requirement for postgraduate qualification like M. Phil., Ph.D., M.D. and M.S. is readily accepted but is not understood for the so called clinical qualifications. The major reason for this lack of appreciation is that the models for most of the postgraduate qualifications have been derived from those in Europe or America. In these countries their exposure to research methodology is very often done in pre-medical education and again continued research is the yardstick for moving upward in the academic and professional field. All those who have done their undergraduate education in this part of the world, then gone to Europe or America for postgraduate and came back immediately after acquiring the postgraduate certificates have got a lop sided view. They have been exposed only to the middle part of a programme which is a continuous stream. They have missed the exposure to the much broader pre-medical education of those systems and come back without experience of research as evidence of continued professional development. Specialists/Consultants who are not involved in formal teaching need to understand research methodology, if for no other reason than to understand how research is done. Without it they cannot fully comprehend the flood of new literature or be able to discriminate between valid and invalid conclusions, between good and bad studies. We claim to be followers of scientific medicine. Unless we understand the steps of scientific approach how can we be scientific in our work. Hence the need, that all those who do postgraduate training must do some research, albeit a simple clinical study. Training in research is even more necessary for those postgraduates who aspire to become teachers as well. A teacher has to present the new developments in a synthesised form to the students and also answer their queries. Research sustains the enquiring mind and a teacher who does not do research is guillible and outdated. The role of the postgraduate institutions is to include training in research as a built in part of all their programme. As stated above the quantum of it will depend upon the level and type of the qualification. For augmenting their programme of research training the Postgraduate Institutions will need additional funds. The existing budgets of most postgraduate medical institutions have only a meagre allocation for student research. The system of obtaining research funds from external agencies and having students work on these projects has not yet developed here. Therefore, there is a need for funds specifically earmarked for student research. It is unlikely that the Departments of health who control the postgraduate institutions will be able to meet the full requirements of the additional funds for student research. Agencies like Research Councils and Foundations must also contribute towards this end. Promotion of research manpower should be included as one of the top priorities of the research funding agencies. After all the major beneficiaries of increased research manpower will be the research granting agencies themselves as this will help them in executing their programmes. Thus, they should recognise this as a priority area. Research manpower promotion grants to postgraduate institutions/departments should be based on the number of students enrolled, the level of training and the performance of the institution/department in producing postgraduates and not the topic of research which form the basis of evaluation for other grants. These grants need not be very large. About Rs. 25,000 per student per year would give a big boost to the development of research manpower.

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