

STUDY GROUP ON TRAINING AND PREPARATION OF TEACHERS
FOR SCHOOLS OF MEDICINE AND ALLIED HEALTH SCIENCES

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TRAINING OF VETERINARY FACULTY

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The preparation of teachers for any speciality subject can generally be broken down into two parts, training in the technical speciality and training in education. In the field of veterinary medicine, as in medicine, tradition has focused upon preparation for the technical aspects, with a complete disregard (until recently) of the educational aspects of the teacher's career development. This has meant that the preparation of a teacher of surgery or pathology has concentrated upon sending the surgeon or pathologist for residency training in appropriate laboratories or hospitals. Hopefully the resident would also have the opportunity to serve an apprenticeship as a laboratory assistant and, if the opportunity arose, to actually participate in the teaching of a class.

Nowhere in this scheme is a potential faculty member exposed to teaching philosophy, methodology or psychology - except as a by-product of the existing faculty's current way of doing things. Everywhere teaching is regarded as an art "you either have it or you don't have it" and although desirable, the teaching art is considered as being of minor importance in the scale of those factors needed for promotion and financial reward. When the developing faculty member is given free time for self-development either during the summer, sabbaticals or during the teaching year he generally spends it in keeping up with the technical aspects of his speciality by visiting laboratories, or going to speciality meetings, etc. It is, in fact, questionable whether the University would give its approval to the use of its funds or grant monies for a less scientifically directed purpose as a regular event for all its faculty. This, coupled with the rapidity with which the scientific world is moving and the necessity for keeping up with the latest technical advances has, in fact, discouraged the development of purely educational information and skills on the part of faculty members once they enter the fold.

However, it is precisely this rapid turnover of scientific information and the inability of the scientist and the student to keep up with the volume of new information that is now forcing the veterinary faculty to look at the question of its "delivery system". The tendency to introduce a variety of new techniques without a fundamental understanding of more basic concepts of educational philosophy, psychology and methodology is, in my estimation, self-defeating and for the scientific community an invitation to unscientific gimmickry which would not be accepted in any other technical field of endeavour.

This is even more true for those engaged in the education of professionals. We have argued that we are not a trade school concerned simply with the transmission of mechanical skills, but are interested in turning out a "professional" with a base in scientific method and a capacity for self-criticism and self-development. We are also interested in turning out an ethical man who is responsible to his society and to his world. All these concepts go beyond the question of where to place the knife or what to call the lesion seen beneath the microscope. They require some attention to educational philosophy, psychology and methodology. How we train the whole man or woman; how we establish our objectives in this broader vocation, execute our training and evaluate our accomplishments - all these determine our success or failure as educators. Over the years we have placed emphasis on our faculty members as scientists and clinicians; it is now time that we stressed their role as educators.

The adoption of sophisticated techniques offers the developing world both promise and risk. Promise, in so far as the newer techniques in themselves may offer a method by which the shortage of trained faculty and teaching facilities can be overcome. This is particularly true where techniques of programmed self instruction and various audio-visual aids are concerned. On the other hand, risks lie in the fact that situations of application differ and it is only a thorough understanding of the principles of education that will enable the educator to analyse the situation properly and to apply the appropriate procedures. A trained educator can properly evaluate the procedures in use and make the necessary modifications and adjustments.

How can WHO give this support for purely educational activities? First of all we should encourage a greater utilization of the already existing educational establishment located at most universities where our veterinary schools are placed. A greater concern and involvement of these faculties of education with the specific educational problems of our professional schools and the appointment of liaison staff to devote time and effort to assist the veterinary faculties in educational development, would be in order. WHO could assist in the preparation of these educational specialists and in the training of liaison personnel for the veterinary medical faculties.

Secondly some attention must be paid to the encouragement of this type of development for all veterinary faculty members. Courses should be made available in the field of medical education which they should be encouraged by the administration to take during the working year or on their sabbaticals. Faculty members who have attended such activities should be given credit for having done so when promotion, salary increases and tenure are being considered. The administration can make this one of the requirements for senior faculty appointments or for the satisfactory fulfilment of contracts. Certification of faculty which have successfully completed a basic programme should be considered. WHO can promote these concepts.

It is recognized that there may be some time before a university becomes self-sufficient in the field of medical education and thus it may be necessary during an interim phase to promote the development of specialised teacher-training centres for veterinary medical faculties. WHO can help in the promotion of these specialized centres and can provide fellowships for attending faculty members.

It will be initially important to convince the university and veterinary school administrations that teacher training is, in fact, necessary. WHO should, through a series of seminars and symposia, introduce these concepts to key administrators. This has, in fact, already been undertaken in AMRO where a series of seminars sponsored by the Department of Human and Animal Health has pioneered the concepts of newer teaching ideas and methodology. This has been given not only to teachers of preventive medicine and veterinary public health in schools of veterinary medicine, but to their deans. It is proposed that these seminars be extended to the other regions and expanded to include all phases of veterinary medical education. It is further proposed to broaden the topics from those dealing primarily with teaching aids (audiovisuals, self-instructional units, mini-courses, etc.) to those which encompass principles of educational psychology (how people learn, motivation, learning time, rewards, etc.), curriculum development (when to teach, amount of time to give subjects, subject choice and sequence, core and electives, etc.), student, faculty and curriculum evaluation, etc.

While the main emphasis in this paper has so far focused upon education as such, it is important to point out that WHO has a special obligation towards the much-needed development of certain specific technical areas in the field of veterinary medicine. I am referring specifically to the teaching of veterinary public health, epidemiology and biostatistics. These subjects have been traditionally neglected in the veterinary faculties and should be encouraged by the development of adequately prepared teachers. WHO must lead the way for the acceptance of veterinarians on an equal footing with physicians into the schools of public health throughout the world. The successful integration of veterinarians into Master of Public Health and Doctor of Public Health programmes in the schools of public health in the United States is now thirty years old. WHO should encourage the utilization of veterinarians as faculty members of schools of public health and should promote the introduction therein of courses dealing with the zoonoses and comparative medicine. WHO should encourage this development throughout the world with conditional fellowship support.

It is well past the time when the ideas of "one medicine" and harnessing the resources of veterinary medicine for the benefit of public health were accepted on all continents.

The teaching of epidemiology and biostatistics is a necessary adjunct to a total programme aimed at developing those skills which are badly needed to harness the observations which veterinary practitioners make and which provide the data for surveillance of animal diseases. (These include the zoonoses and those diseases valuable in a comparative medical or environmental indicator system.) This can be done by WHO supporting seminars, fellowships and research grants in the fields of epidemiology and biostatistics for veterinarians. Graduate programmes should be promoted for these subjects in schools of veterinary medicine. The organization of professors in these speciality areas into an association for their development should be encouraged. PAHO/AMRO have pioneered these activities in the Americas and WHO should sponsor their extension to other regions.

Lastly, greater efforts must be made to introduce sociology and economics into the veterinary or pre-veterinary curricula and certainly into the training of its faculty. This is particularly essential if veterinary medicine is to make any real contribution towards the socio-economic problems of our time. Some support should be given to specialized training centres for faculty which could deal with these subjects. Veterinary centres concerned with socio-economic activities at the graduate level are currently being developed in England and Australia. Their activities should be supported and other centres for such purposes promoted in the regions.

A network of veterinary public health centres located in various types of ecologic and socio-economic locations throughout the world could undertake as part of their routine activities the promotion of all the educational objectives listed above. These training centres would be closer to the local conditions and speak in the local idiom. One model of such centres exists in the Pan American Zoonoses Center in Buenos Aires. WHO should encourage the development of such centres and support their educational activities and facilities.

This paper in very brief form has attempted to focus attention upon the two aspects of the training of veterinary medical faculties in which there is a need :

- (1) training in the general field of education,
- (2) training in those specific areas of technical specialization which are of immediate public health concern : veterinary public health, epidemiology, biostatistics and socio-economics.

There is already much activity underway in this field in PAHO/AMRO and it is proposed that WHO/HQ supports the extension and expansion of these activities to the other five regions of the world.