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EVALUATION OF TEACHING AND RESEARCH IN PUBLIC HEALTH - MPH/DPH AND OTHER POST-GRADUATE COURSES

by

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1. Public Health Courses

The purposes of the Schools of Public Health and Institutions responsible for advanced teaching in Public Health are, in addition to research in public health and service to the community, to offer adequately designed graduate courses covering the subjects essential to the understanding of the various problems of public health and the concepts, organization and techniques required for dealing with them.(1,2) Although many institutions of higher learning in Public Health offer opportunities for certificate courses, on the job or in-service training as well as residency programmes of short or long durations (the latter more specifically aimed toward training of research-workers), the normal forms of instructions are the regular MPH/DPH programme. Residency toward specialization and certification by the Board of Preventive Medicine and finally the Doctoral programmes (Ph.D or Dr. P H.) are offered only after the latter degrees are obtained.

In many instances these schools also offer as part of continuing education activities, post-graduate courses, seminars etc. to graduates and specialists during which very special subjects are dealt with in depth.

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According to available records, out of twenty-three Schools and Institutions in Asia and Africa only three offered in 1967-68 higher degrees than MPH/DPH. (3,4). Consequently, we will concentrate here only on MPH/DPH programmes although the principles laid down for the evaluation of teaching and research would similarly apply to other courses.

Normally a regular MPH/DPH course is designed to provide:

a. Adequate background information about various aspects of public health in general and in basic health sciences in particular: (core courses) (first semester).

b. Possibility for concentration on a major area of interest including general and specific case studies: (second semester)

c. Observation tours and field visits (during a and b).

d. Field practice (2 -3 months: summer period).

e. Opportunity for research experience under supervision and direction.

and make sure that the student has had a chance to develop his:

a. Knowledge and skills

b. Faculties for independent and sound observation, analysis, decision, action and feed-back

c. Capabilities for continuous self-education.

d. Spirit of cooperation, team-work and collective endeavours.

Obviously, the definition of objectives, design and application of such educational programme are great challenges to the planners and teaching staff of the Faculties of Public Health. The period of time available is not very long (normally one year); the bodies of knowledge to gain are diverse, advancing fast (doubling every eight years!) and adding up (computer science, management science, operational research etc.); the health service systems respond differently in time and space to various requirements of the po lations for preventive, curative and social and physical rehabilitative services, at the same time that new techniques for system analysis and

operational research are changing its structure, thus changing the expectations from the trained health personnel; finally both national and regional needs for trained health workers (whether in operational or research and educational fields) are growing fast and have become more complex because of the far-reaching changes in economic, demographic and social forces which, simultaneously, affect the environment and human ecology as well as the attitudes and motivations of students.

At the same time, there exist a justifiable tendency for observing and respecting international standards in health and medical education which is necessary to assure the mutual recognition among various academic circles as well as the comparability of diplomas and degrees. (1,57)

2. Evaluation of Teaching and Research in Public Health Courses

Since the ultimate value of the education and training of health personnel lies in their contribution to the well-being of the population, the evaluation of the "organized complexity" of curriculum content, methods of teaching, student, teaching staff, resources, educational system, health service systems, health needs and demands of the population, cultural and social values and motivations etc. is not an easy nor a simple task.

One approach to evaluation is to conduct long-term follow-up studies of former graduates, relating their subsequent careers and performances to their training.

A prospective approach may be more practicable, provided that the course is designed and carried according to plan with defined goals and objectives. Every component of this educational process, as listed before, may be evaluated. Such on-going evaluation gives a constant feed-back of objective information which pin-points any need for modification. (6).

Few important aspects of each component of this organized complexity may be outlined here:

a. Curriculum content

The relative proportions of different subject matters and inter-relationships between subjects, (basic and applied, public health sciences, behavioural sciences, management sciences etc.)
The relative proportion of theory and practice and their integration, the degree that health problems and socio-economic conditions of the country are covered, balance of required and elective courses, substitution of new knowledge for existing curriculum content.

b. Methods of teaching and learning

Value of initiation courses, size of classes, relationship of hours spent in the class, for private study and for homework, effectiveness of real or simulated situations, models etc. effectiveness and the degree of utilization of audio-visual aids, methods of examination and their values, participation of students in case studies, round table discussions, seminars, surveys (Health, KAP etc) interviews , dialogues etc., group dynamics, extra curricular activities.

c. Students

Methods of selection, qualification and course prerequisites, preference for some years of experience before admission, motivations (seeking knowledge and self-improvement or qualification for higher administrative positions) command of a scientific language and the rate of speedreading, financial security during the period of study, students drop-outs.

d. Teaching staff

Fulltime staff, guest lecturers from various executive and research organizations; International teaching staff, teachers - student ratio, active research on health problems carried by teaching staff; Evaluation of teaching capabilities of teachers by colleagues or students.

d. Teaching and training resources

Library facilities, availability of documents and literature in the language of instruction or other scientific languages; laboratory facilities, the use of service institutions, hospitals, urban and rural Health Centres, field research stations, etc. Vehicles and equipments for mobil surveys, facilities for accommodation of students interested in research and degree of preparation of students in basic disciplines; availability of computers, qualified system analysts and programmers.

e. Educational System

Regulations for admission, registration, and graduation; Relationship of the School of Public Health with other Faculties and Departments of the University, degree of co-operation and participation of other Departments in teaching and research programmes of the School and vice-versa. Relationship of the School with Ministry of Health and other Government Organizations. Relationship with Voluntary and Private Organizations; Relationship with International Organizations, Degree of participation of the Faculty of the School in national health and manpower planning.

f. Health services system

The organization of health services and the allocation of tasks and responsibilities among health personnel; the public and official images of health personnel and their effect on recruitment and promotion and motivation; remuneration of Health workers versus clinical practitioners. Co-ordination between health and manpower planning and the development of School of Public Health in term of space, resources, staff and budget.

g. Health needs and demands of the population

Health problems, their nature and magnitude (specific epidemiological factors, general public health factors, public administration factors, demographic, social and cultural factors, economic factors) - Policies followed to tackle the problems, past works, future plans. Priorities among health needs, quality and quantity of health resources, the degree that the needs are satisfied. Methodology and cost of streamlining the services (system analysis).

h. Cultural and social values and motivations

Health related knowledge, attitudes and practices, complaints, public participation and acceptance, public resistances, etc.

The above list is neither complete nor is arranged with an order of priority; it is only given to exemplify the complexity of the system under study. (7)

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The question of research in MPH/DPH courses has been referred to at every pertinent point in the previous paragraphs. It should be emphasized, however, that the only way to learn research is by doing it. It is the existing atmosphere of research and active participation of teaching staff in research on various aspects of health problems of the country, (or on regional or international level) that attracts the students to join and become members of the research team; - care should be taken, however, about their knowledge of basic disciplines and the ability to handle effectively the intellectual tools necessary for proper understanding, design, analysis and evaluation of research experiments, surveys, etc. Sufficient supervision and direction are needed to make sure that the student can work through the steps of the scientific method, from initial statement of the question, to the definition

of hypotheses, research of the literature, the adaptation or development of research methods and facilities, the data gathering and finally the analysis and write-up.

Obviously during the MPH/DPH programme the time is not sufficient for the student to go very deeply in such elaborate research work; these, however, apply specifically for those who work for their specialization and/or doctoral degree. (8).

3. Conclusion

Evaluation must be considered in the context of the educational programme and the interaction of various components of this organized complexity. The study of the possibility of using the system analysis approach in the evaluation of teaching and research in public health courses is in order.

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