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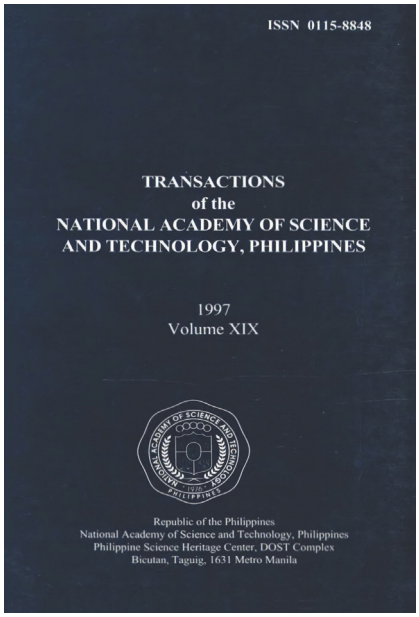

Medical Education in the Philippines

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PLENARY SESSION IV

MEDICAL EDUCATION IN THE PHILIPPINES

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Medical Education in the Philippines dates back with the establishment of the College of Medicine of the University of Santos Tomas in 1871. It has continuously been in operation and has produced a long list of illustrious medical graduates and some very prominent medical practitioners including our national hero, Dr. Jose P. Rizal. Among the illustrious graduates of the University of Santo Tomas College of Medicine are: Joaquin Pardo de Tavera, Joaquin Gonzales, Santiago Bartolome who was the physician of Gen. Emilio Aguinaldo during the revolution, The Guerreros: Alfredo and Luis, and many others.

In 1899, the Malolos Congress established the second medical school of the Philippines, the "Universidad Cientific-Literaria de Filipinas." At the beginning, it was referred to as College of Medicine and Surgery. This school was short-lived; but it is interesting to know that a number of the professors of this short-lived medical college later on became members of the faculty of the medical college of the new University of the Philippines which was established in 1907.

Among the illustrious members of the faculty connected with both and formed linkages between the two were the following: Dr. Fernando Caldero; Don Luis Guerrero who later became Chairman of the Department of Medicine in U.P.; Dr. Ariston Bautista-Lim who later on took post-graduate studies in Europe, also became the first Chairman of the Department of Medicine in U.P.; and Dr. Jose Albert who became Chairman of the University of the Philippines, Department of Pediatrics for many years.

The initial requirements of the university was a high school diploma before entry to the College of Medicine.

In 1959, the Medical Act was passed into law that required a baccalaureate degree in premedicine for admission to the College of Medicine; and a Board of

Medical Education was created to oversee and insure high standards of education in the country.

Curriculum

The curriculum was traditional in approach: subject-oriented, teacher-oriented, crisis hospital-oriented, and largely patterned from the western model of medical education from the very beginning. There was a drive to adopt the technological advances and to train specialists perceived to be the highest level of professionalism, both economically and academically. Our graduates became adept with health conditions of the west and yet woefully unprepared to meet the challenge of serving the health needs of the Filipino people. Results were well known: large scale migration of physicians, high cost of health care with greater inequity in health care delivery, dissatisfaction with the medical profession which placed undue emphasis on the curative aspect of medicine at the expense of preventive and promotive care.

As early as the 60's, these problems had already been identified. The University of the Philippines-College of Medicine (UPCM) in its Seventh Teaching Institute on May 28-30, 1962. I had the privilege to Chair this institute, as Chair of the Department of Medicine. We reviewed the Objectives, Curriculum and Methods in the medical school.

The objective of undergraduate medical education is to provide an adequate preparation for the medical student so that he can go into general practice or proceed further for graduate training in a specialized practice, research and/or teaching of medicine.

Our observations in that institute are still as relevant at this time:

1. The a curriculum stressed general principles, scientific approach, correlation between basic science and clinics.
2. The importance of research in medical education was particularly emphasized at this early stage. The Department of Medicine through the initiative of its Chairman, set up the first Medical Research Laboratory in the College of Medicine funded by grants from the Rockefeller Foundation, China Medical Board and the National Science Development Board. The laboratory succeeded to attract many young members of the faculty who later on became the outstanding leaders in their various disciplines.

   Dr. Campos who was sent by the College to attend the Oakridge Training Course in Nuclear Medicine initiated the establishment of the first Radioisotope Laboratory in the country. Under his dynamic leadership of the Department of Medicine, this department went on to establish specialty clinics both in the Out-Patient- Department and in the In-patients so that a time came to pass when half of the faculty of the College were in the Department of Medicine.

3. Students were immature, irresponsible, with poor communication skills, and prefer spoon feeding.
4. Concern about quality of teachers was felt: desirable traits of dedication, capability of imparting knowledge and concern for the students learning and even of what they teach, intellectual honesty.
5. Modification of the curriculum started allowing students exposure to various health problems in the community.
6. Teaching and learning methods were reviewed (lecture method, size of the class, site of learning activity). Already the importance of ambulatory medicine which closely approximates what a graduate would have to meet in actual practice of the profession entered curricular planning and methodology.
7. The institute came to the conclusion that graduate medical education is a must; so our doctors be conversant not only for increased scientific knowledge as required in specialty practice, in teaching and research but also for their continuing education.

In 1967, the Association of Philippine Medical Colleges was established to facilitate and coordinate the affiliation of the various medical schools, undergraduate course requirements with the government hospitals and facilities and working for necessary amendments to the Medical Act.

The herein proponent in a Symposium on Science and Technology on December 3-4, 1970 emphasized that brain drain is a reflection of failure in our part. Successful medical education is intended to produce doctors for rural areas, should be oriented towards work in these areas and new curricular need to be designed for such purposes. Questions like the following need to be answered: What type of doctors are needed in the country? How much of these types of doctors should be produced? and Where-what parts of the country are these doctors needed?

Addressing the Problems

The necessity for familiarity of health workers, especially doctors, with the problems of the community was clearly obvious. To address this need:

1. University partnership with the community was explored in Los Baños in 1961. As Chairman of the Department of Medicine, we started with the Department of Medicine fielding its interns for one (1) month every year in Los Baños as a part of the agricultural extension of the College of Agriculture.

In 1963, under the initiative of the Department of Medicine, a formal Memorandum of Agreement (MOA) between U.P. and the Department of Health (DOH) resulted in the organization of the Comprehensive Community Health Program (CCHP) at Bay, Laguna with Dr. Paulo C. Campos, acting as Chairman of the Department of Medicine and concurrently its Director. With the University of the Philippines CCHP meeting this health needs of Bay, Calauan, Los Banos, Pila, CCHP served as the

community laboratory of U.P. established as an autonomous health district, a furtherance of devolution of the Department of Health.

Eventually, CCHP involved almost all health sciences schools of the university including Arts and Sciences, specially the Social Sciences. No less than Alfredo Landa Jucano wrote his well-known book on medical anthropology while he was working with the CCHP.

Various government policies were initially tried here. The inclusion of *hilots* as a part of the community health team resulted from studies done in CCHP. The initial government policy of barring them from the health team was reversed and instead replaced it with a new policy officially including them so long as they will gain some initial instructions; provided with necessary tools and supervised by the official community health worker.

Initial studies in devolution of the Department of Health were made here when an initial attempt to develop an autonomous health district such as the Bay project, including close working relationships between public and private health care groups utilizing common facilities.

The initial studies on the use of iodized oil for the prevention and eradication of goiter were made in Bay using Dr. Campos' initial experiences in his goiter work. By the time Dr. Campos left the directorship of Bay, Laguna, he has succeeded in placing community medicine officially in the curriculum of the College of Medicine starting from the first year up to Internship. He demonstrated the need not only for community orientation but more importantly for community based learning in Medicine so that it can be more relevant to the needs of the country and to instill in medical students the sense and dedication to the service of their countrymen. Attempts were made to discredit this but it has remained solidly and indelibly a part of the curriculum not only of the U.P. College of Medicine but all other medical and health science schools in this country.

It is my firm belief that the Tacloban experiment needs a candid review. It was originally conceived to be the answer to the increasing medical services to the remote areas of the Philippines. It is now over 20 years. It is increasingly evident that the problem is more of socio-economic one which is slowly being resolved with improved socio-economic conditions. In this more remote area that modifying and/or inventing new curricula on new methodologies does not seem to contribute much to its solution. It is unusual for medical schools to run first medical curricula simultaneously. The UP seems to be an experimentation running not only two but actually three curricula simultaneously over the last almost 20 years. They are possibly justifiable as experimental curricula; but surely after 20 years this university possibly must come to a decision which to continue and expand so that it can channel its resources, its energies, and its talents to the more desired functions of great universities - research and development.

So much has been said about Intarmed and after a generation of specialization with Intarmed it is about time we decide whether we will have to take Intarmed and drop the conventional curriculum or vice versa. I have some advantage since I have

been around in the medical academe for a much longer period than most of our faculty and medical administrators. I feel that shortening the curriculum may have advantages but can create disadvantages. We started with a four year curriculum in 1909. One or two years later we added a shorter pre-medical work. By 1918 we required an associate in arts (two years of pre-medical work). By the 1950's we were convinced that we need a longer preparation period for our medical students; So the Medical Act of 1959 required a baccalaureate degree for admission to medicine. The pendulum is definitely unstable and tends to swing back. Fortunately the UP preferred to experiment initially but the other medical schools did not seem to waste their time experimenting and wanted a shortened medical course. The reasons are not always arguistic. To shorten this medical course we have to refill the Medical Act of 1959. It allows only experimental courses as an exception and only in credible medical institutions. Shortening it will require a refill of the Medical Act of 1959. It may not be too bad for UP but it can be disastrous for medical education in the country. Even for UP, after 17 years of experimenting, we definitely cannot say it is better for many reasons: (a) It is a highly selected course curriculum and access is limited to a very few fortunate souls who have the money and/or the connections to get into science high schools and to qualified institutions like UP, Ateneo, an a few other institutions: (b) Even UP has to spend extra money to provide the faculty and the resources for such an intensive curricular offering and the products of this 17 years have not shown any distinct advantage of the graduates of Intarmed to the graduates of the conventional four year curriculum. As a matter of fact, casualties are higher in the Intarmeed program. The committee that studied the products seemed to feel that the Intarmed projects are less mature than conventional graduates, and (c) Lastly, accessibility to such a curriculum really has become very limited so that there is not one to replace the conventional program.

2. In 1975, the National Teachers Training Unit was established to handle the training of medical school faculty in pedagogy.
3. A step-ladder type curriculum was adopted in 1976 at the UP Institute of Health Sciences in Palo-Leyte wherein the students were nominated by the community and passed through steps starting with barangay health worker - community health worker-midwife-general nurse-bachelor of science in community health - public health nurse-medicine proper with internship.
4. Alma Ata Declaration of Health for All in the Year 2000 promoted the concept of primary health care, an approach to the provision of health services emphasizing promotive and preventive care, partnership between health and other professionals and the community and insuring that basic health services are "available, accessible, affordable and acceptable."
5. Intarmed curriculum was adopted. It is a seven year Integrated Medical Curriculum in UPCM with students accepted directly from high school, providing for integration of premedicine subjects into the basic medical sciences.

6. The World summits/conferences in Medical Education in 1988 and 1993 established directions for medical education through reforms such as curriculum based on national health needs, commitment to primary healthcare, competency based learning, identifying new challenges in medical education such as increasing population, economic recession, shrinking resources, emerging new diseases as well as resurgence of previously controlled ones as tuberculosis, medicine becoming a business.
7. World Health Organization (WHO) in 1994: Changing Medical Education Agenda for action, identified the expanded roles of a five-star doctor.

The 1993 call for changes was basically an endorsement of the conclusions and suggestions of the 7th teaching Institute (1962) of the UP-College of Medicine: (a) changing of institutional missions towards improving health rather than simply providing care; (b) revision of outdated curricula, balance of demand for generalists and specialists; (c) newer methods of teaching and learning; (d) population-based setting for learning-stress ambulatory care; (e) ethics in medical education - basic principles of medical ethics together with newer issues raised by new biomedical technologies and changing social perspectives.

In the Philippine, there have been several responses to the call for change:

1. DOH Partnership for Alternative Health Science Education (PAHSE) - similar to the step-ladder type curriculum
   - Bicol Christian College of Medicine in Legaspi City
   - University of Northern Philippines in Ilocos Sur
   - Western Mindanao State University in Zamboanga City
2. Community-based curriculum,
   - Mindanao State University in Iligan City
3. Problem-based community oriented education
   - Zamboanga Medical School Foundation
4. Establishment of Clinical Epidemiology Units
   - Centro Escolar University
   - University of the Philippines in 1982
5. Association of Philippine Medical Colleges (APMC) - promotion of reforms in medical education thru seminars, workshops in training faculty

Challenges of the Future

1. Faculty and administrative response
   - resistance to change, coming from traditional medical education
   - scarce resources for faculty incentives: part-time faculty is more the rule rather than the exception

- basic sciences faculty recruitment: clinical sciences more economically rewarding

Solution: Need to emphasize that the faculty members' first goal is to foster students' lifelong learning by helping them to develop their learning skills, as mentors guiding learning rather than providing information that students are expected to memorize for examinations.

Faculty development: Educator track for both basic science and clinical faculty; need to reward excellence in teaching, providing support, create meaningful cross-disciplinary teaching opportunities to encourage faculty members to assume educational responsibilities beyond their specialized area of practice or research.

Facilities are needed to train faculty in the use of computer for medical education.

2. Student selection - continuing search for a screening tool that will bring out desirable social attitudes and personal values of the student in addition to academic qualifications
   - need to provide equitable access to medical education thru scholarships

3. Evaluation - change from the traditional multiple choice objective questions to problem -oriented, objective examinations that will assess solving and patient evaluation skills: Objective Structured Clinical Examination (OSCE)
   - Licensure examinations intended to maintain standards but there is no flexibility to adapt to changing learning activities of integration, etc.

4. Extensive technological advances and rapid accumulation of knowledge requires accompanying support in library system, methods of supporting learning and communication and data management system with the use of computers.

5. Need to foster and maintain humane and caring attributes of the physicians in view of the over-developed technology as well as the trend of medicine and health care delivery system being seen as a form of "business".
   - support team work among health professionals
   - introduction of social sciences in medical education
   - environmental concerns in the form of threats to ecology and growing awareness of interaction between health and environment should be properly emphasized.
   - ethics in medicine - newer issues as organ transplantation, genetic engineering, etc.

6. Need to provide adequate positions for postgraduate training with training with the closing of American hospitals to foreign medical graduates (this should be seen as an opportunity rather than as a threat).

Curriculum Change

The seven year integrated liberal arts - medicine programme was designed to shorten the medical curriculum to seven years and to implement the concept of medical education as a continuum that would result in early exposure of the student to the philosophy of the medical profession while allowing for ethical, humanitarian and social development of the student. The incorporation of internship in the undergraduate curriculum assures that progress and forward step along the line of continuing medical education will be achieved and facilitate acquisition of graduated and increasing levels of professional responsibilities.

There were other reasons for the curriculum change. One was the undesirable B.S. pre-med students' attitude to aspire for higher grades rather than learning and education. In the third year proper, there were too many subjects which led to frequent examinations. Students could not cope with the daily topics nor prepare adequately for the tests. There was also no observable difference between the performance of the B.S. graduates and those of the previous two year pre-medicine era.

The Intarmed Program

The new curriculum was geared to achieve significant purposes. One was to provide a general education that would develop nationalism in the students while achieving the goals and objectives of the College of Medicine. A second aim was to apply the philosophy of "relevance in education". It was also geared to achieve savings in time and educational expenses.

The main goal of the seven year INTARMED PROGRAM is to graduate physicians who will have, not only the scientific competence to practice medicine, but also the social conscience which will motivate them to continuously improve medical services in the Philippine society. The program is guided by the aim of the UP College of Medicine to produce graduates who will be primary physicians with potentials to be teachers, researchers and specialists.

The program aims to develop in the student a clear perception of the medical profession by early clinical exposure. A liberal education is emphasized which includes critical thinking, logical decision making, appreciation of community role and the development of attitudes of compassion, respect for the rights and privacy of others. Other objectives include the acquisition of competence as a primary physician as well as the capability to develop in many directions in medicine. Comprehensive health care and the role in a health team are emphasized. The program assists the students to assume personal responsibility for his own education.

Curriculum Strategies, Content and Evaluation Plan

The relevant strategies include the teaching of the humanities throughout the program horizontal and vertical synchronization of subjects and simple to complex progression in course content. Whenever possible the problem-oriented and integrated approaches are used. Basic sciences are taught with a clinical orientation and

clinical subjects are studied with a basic science orientation. The other significant methodologies are a more equitable distribution of subject load, rural internship and the provision of time for electives and self-study. In addition there is an early and greater exposure to clinical situations with increasing but graduated responsibilities in patient care.

The following are the fields of study in the INTARMED program: humanities, social sciences, mathematics and physics, chemistry, biology, human biology, human illness, neuroscience, family and community health, pre-internship clinical experience, research, pedagogy and management.

With the assistance of the late Professor Corazon Paulino-Gonzales, an evaluation plan was also outline which was envisioned to run parallel with the program implementation. The intention was to identify program weaknesses, determine degree of attainment of objectives and assess quality of the products.

Early Revisions: Integrated Clinical Clerkship (ICC)

In 1986, Dean Alberto G. Romualdez Jr. introduced the Integrated Clinical Clerkship (ICC) as a manner of implementing the clinical years of the INTARMED Program. In effect, it was a curricular revision which was approved by the University Council of Manila on May 26, 1987 and confirmed by the Board of Regents during its 1000th meeting on June 25, 1987.

In the original INTARMED Program, clinical clerkship was described only at Year Level VI as a half-day morning schedule. The afternoons were intended for didactic lectures. The ICC revisions however, instituted a 2-year clinical clerkship (year levels V and VI) which integrated the didactic and ward rotation of all clinical courses. The "block system" was also introduced wherein the class was divided into small sections with each section taking only one subject at a time.

On April 17, 1986 the Up system adapted a general education program (GE). On November 20, 1987, the University Council of Manila approved the incorporation of the GE program requirements into the first two years of the INTARMED Program.

Initial Evaluation

The initial formative evaluation of the program in terms of its implementation and effects was completed in 1989 during the term of Dr. Marita V.T. Reyes. Professors Maria Lourdes Rebullida and Laurie Ramiro of the UP Manila College of Arts and Sciences conducted the study at Year Levels 1, 2, and 7. The evaluation focused on determining the effects of the program on the self esteem, social adjustment, adaptability and social distance of the direct high school entrance. (Non-BS students). The implementation aspects of the evaluation included the following: system of classroom teaching; teacher factors; relevance, description and scope of subjects; and facilities.

The important conclusions of the initial evaluation are the following:

1. The non-BS students are able to cope with the academic demands of the program without much difference from the BS students.
2. The emotional maturity of non-BS student are not fully well developed. More time should be provided for developing personal social relations, and enjoying extra-curricular activities and experiences.
3. On the objectives of social awareness, concern, commitment and responsibility, there is an expression of willingness to serve in rural communities and in the country instead of practicing medicine abroad.
4. INTARMED students at Year Levels I and II should be mixed with students of other courses.

On the part of the Curriculum Committee, an Internal Evaluation Report was submitted by Dr. Genara Limson. The report concluded that the academic performance of the Non-BS students is about the same as the BS students. The report emphasized that at this point of the program, it is not fair nor reliable to assess the leadership qualities and social consciousness of both groups of students. The report further recommended that the admission of Non-BS students be expanded.

The Integrated Clinical Clerkship was also evaluated. The result showed an over-all satisfaction from the students because of the implementation of several learning activities other than the lecture method. The implementation of electives added to students satisfaction. However, there were isolated complaints on unclear objectives with regards to patient care and responsibility. Some faculty members continue to be unhappy over the faculty intensive schedule of the ICC.

Latest Revisions

In January of 1992 during the term of Dean Alfredo T. Ramirez, a next set of revisions to further enrich the INTARMED Curriculum were approved by the University. The implementation started in Academic Year 1996. Pediatrics, Surgery, Obstetrics-Gynecology were restored in Year Level 6. These revisions will remove the learning gap in these subjects and improve the entering knowledge and skills at Year Level 7 (internship).

Dean Ramirez encouraged the use of innovative and modern curricular approaches. The faculty of all academic departments held workshops and seminars on competency-based learning and problem oriented method of instruction. The faculty was encouraged to use more interactive learning strategies like group discussions where the student is an active participant in the learning process. Seminars were held concerning teaching methods that are process-centered rather than content centered and student directed rather than teacher directed. These approaches will gradually replace the traditional, less efficient subject matter/discipline based instructional method.

A Medical Education Unit was formed composed of medical faculty members with education degrees or units. This unit conducts seminars and workshops on teaching methods and evaluation of students. Attendance in these pedagogy workshops is now a requirement for faculty permanency.

Community-Oriented Medical Education (COME)

A major area of concern is how to translate the UPCM Vision of community-orientation in the INTARMED curriculum. Dean Ramirez in 1992 launched in the 5-Point Strategy to Implement Community Orientation: 1) enrichment of Family and Community Health Courses; 2) revival of the Muldisciplinary Community Health Program; 3) extending curricular credits to participation in socially-oriented student/campus organizations; 4) designing community-oriented departmental courses, projects and extension/consultancy services; 5) enrichment of the 6-week community preceptorship program for interns.

The 1994 Evaluation

An external evaluation was completed in 1994 by an Ad Hoc Chancellor's Committee headed by Dean Cristina Mencias of the UP National Teacher Training Center for the Health Professions. The report helped the College to re-focus on the original design of the INTARMED Program and to assess the extent of the achievement of the objectives. Weaknesses and unintended effects were also identified. One of the objectives of the INTARMED Program is to improve the health service in the Philippines. Available data on the whereabouts of graduates indicate that these objectives has not been attained. An almost equal percentage (48.5% for direct and 48.7% of lateral entrants) are abroad, working or taking up residency.

The 1994 evaluation report also gave specific suggestions on the following areas of concern: Community orientation, schedules, teaching methods, instructional materials, faculty matters, selection and evaluation of students.

Current Curriculum Enrichment

The Management Action Plan (MAP) of current Dean Amelia R. Fernandez gives priority to continuing INTARMED curriculum development strategies. A conceptual framework was developed by the present Curriculum Committee, Chaired by Dr. Lourdes L. Ignacio. There are three areas of current concern: 1) introduction of a gradual, early, and sustained community-orientation, correlation and field experience starting at Year Level 3, 2) strengthening the development of values, humaneness and compassion; 3) integration of bioethics in the curriculum.

Dean Fernandez and the curriculum committee agree on the implementation of the INTARMED Program as originally designed consistent with the College vision-mission statement. New models for horizontal and vertical integration of courses are being developed (e.g. reproductive and cardiovascular systems) using the Integrated

Neuroscience Program experience as reference. More concrete curricular guidelines are being outlined by defining specific Year Level competencies (Year Levels 3 to 7). The following strategies are being enhanced: competency-based learning, self-directed learning and problem-solving skills.

The Ideal UPCM Graduate: A Multipotential Primary Physician

The INTARMED Program desires to develop the ideal UPCM graduate. A physician who is able to develop in many directions in medicine (Multipotential Graduate) but who will possess the basic knowledge, skills and attitudes necessary for being a PRIMARY PHYSICIAN capable of participating in a comprehensive continuing care and working as a member of the health team. He is a committed, professionally competent, socially conscious Filipino physician and community leader who is able to develop as a basic scientist, medical practitioner, specialist, researcher, teacher, and health administrator.