Innovative Approaches to Curriculum Changes in Japanese Medical Schools

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In 1994 the Japan Society for Medical Education celebrated its 25th Anniversary. Dr. Daizo Ushiba, president for 25 years, retired, but we continue to follow and expand on his thoughts. The members of the Society are 1,044 this year including 19 overseas members and 17 students. The Society holds an Annual Congress in July. Seven standing committees and 6 working groups conduct major activities of the Society. We are proud of these committees and working groups as they include many important persons from medical schools, teaching hospitals and the doctors in practice. They are influencing the innovation of medical education from many directions.

1. Undergraduate Education

When we talk about the changes in medical education, we may have to go back to the nineteen-seventies when the number of medical schools increased from 46 to 80 during several years. Let me, however, start with the undergraduate education of medical schools, which are now facing the largest innovative demands we have experienced since the end of World War II.

The Ministry of education(now Ministry of Educa-

tion, Science, Sports and Culture) issued in 1991 a very important decision called the Innovation of University Chartering Standard Law. This innovation allowed more freedom in the curricula to all universities in our country. Certainly this innovation involved medical schools.

Each medical school and faculty of medicine may have its own educational objectives. Development of new curricula are encouraged, and the premedical two year course was advised to be incorporated into the following four years for an integrated six-year curriculum.

Also, in 1991 the Ministry of Health and Welfare issued a statement which permitted medical students to practice to a limited extent of four conditions were satisfied. They are: ① in case that students have a certain amount of clinical knowledge, ② within a limit indicated by the medical school, ③ under the supervision of an instructor, and ④ with patients' consent or agreement.

Medical schools are encouraged to conduct self-assessment programs. For the last four years, particularly those schools, with traditional curricula, have tried to find new directions for their own responsibilities.

Japan Medical Education Foundation, chaired by Dr. Katsumi Kaketa, has been active for 16 years since it was organized in 1979. The Foundation has

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at this moment six different activities. The six activities of Japan Medical Education Foundation seem to be worth mentioning: Namely, ① 'Curriculum evaluation visits' to selected medical schools, once a year, ② Provision of 5th year medical student's selected medical schools, once a year, ③ Regional symposium on medical education in one of six regions in Japan, once a year, ④ Annual symposium of invited foreign medical educators, once a year, ⑤ International conference on medical education, once every five years, and ⑥ Publication of books.

The first of these is to encourage self-evaluation of medical schools by conducting curriculum-evaluation visits to a selected medical school by the professors from all other medical schools in Japan. This seems to be an exceptional opportunity for the selected school to enhance its innovation and it provides a useful occasion for the visiting professors to see innovations in other schools.

Some of the young medical schools less than one fourth of a century old have so-called new curricula. Both the University of Tsukuba and Saga Medical Schools have had entirely integrated curricula since their inauguration about 20 years ago. The curricula start with human biology, then to organ- or symptom-oriented integration. Presently, some new and old schools have implemented curriculum innovations to varying degrees.

Let me show you an example of a curriculum innovations which has been going on for several years, i.e., an innovation of the curriculum started before the Ministry of education's innovation declaration of 1991.

Tokyo Women's Medical College was inaugurated in 1900, and it belonged to the schools with "traditional curricula." After investigation of new curricula, especially in McMaster Medical School in Toronto, and Harvard University School of Medicine, Boston,

Dr. Morimasa Yoshioka, the Rector and the Board of Professors of the School, decided to introduce new curricula of a problem-solving type with dominant tutorials in undergraduate medical education. Students taught by the new curricula will graduate for the first time next year.

Incidentally, in July, 1996, the Annual Congress of the Japan Society for Medical Education will be held in Tokyo Women's Medical College under the presidency of Dr. Yoshioka. We are looking forward to listening to the results and evaluation of the new curricula, although it may be too early to evaluate the full impact of the changes.

2. Postgraduate Education

In 1968 internship was abandoned after students rioted for several years. Internship programs were introduced to our country in 1948, and lasted for 20 years. The intership had at least three major defects, i.e., no established curricula, no financial support either to the institutions or hospitals, and no salary for interns. It was successful in a few teaching hospitals but not in most university hospitals. With only these few exceptions, the system was recognized as not useful for all and finally abandoned.

In recent years, committees organized by the Ministry of Health and Welfare publicized advice and recommendations to require mandatory postgraduate clinical training for a year or two after graduation from medical school. Under present law, the graduates sit for a National Examination for Physician's Licensure immediately after graduation.

Discussions are continuing, not only in the existing Committees but in Committees newly organized by the Ministry. Outside the Ministry, medical schools and teaching hospitals are highly concerned with this matter. Medical students are especially afraid the new system of postgraduate clinical training will be merely a revival of the "internship" that was aban-

done because of several serious reasons.

The Japan Society for Medical Education is also very concerned about this issue. The Committee on 'Postgraduate Education' chaired by Dr. Masahiko Hatao prepared a questionnaire and sent it to medical schools and teaching hospitals. The Committee made a report on the "Medical Education" questionnaire study results after several committee meetings last year and early this year. The Committee also organized a full day workshop with additional members, and a summary statement was publicized in the June issue of the Journal "Medical Education."

Executive board members of the Japan Society for Medical Education held several committee meetings, and, based on the reports of the questionnaires and the workshop by the Postgraduate Education Committee, issued an official view of the Japan Society for Medical Education on Postgraduate Clinical Training. This was publicized in the Journal, Medical Education and sent to those who are concerned with this matter, i.e., the Ministry of Health and Welfare, Ministry of Education, Science, Sports, and Culture, Japan Medical Association, 80 medical schools, and teaching hospitals.

The views issued by the Japan Society for Medical Education are as follows; Trainees should be recognized as an independent physician in practice, however, only in accredited teaching hospitals; the government should extend financial support to teaching hospitals for necessary facilities and the recruitment of teaching staff; and trainees should be paid a salary as a doctor. Several other conditions were mentioned that should be fulfilled. Many expect the new system to be realized in several years, but are not pushing too much because teachers and trainees, and other concerned parties should come to a complete and mutually satisfactory agreement.

I should emphasize obligatory postgraduate clinical training is believed to be necessary by most teachers

and clinicians, but appropriate conditions, should be satisfied to make the new system a great success.

3. Student Selection, National Examination for Physician's Licensure, and Continuing Medical Education

Three committees of the Japan Society for Medical Education, i.e., Student Selection, National Examination for Physician's Licensure, and Continuing Medical Education, are also actively working for innovation.

The Student Selection Committee chaired by Dr. Isamu Sakurai holds annual committee meetings on special topics such as 'selection by recommendation', 'selection by interviews', 'follow-up of medical students to relate their scores on the selection examination with those of the national examination for physician's licensure', and so on. The Committee issued a statement in 1979 to add additional evaluations. e.g., interview, a short essay, high scores, a recommendation letter to confirm the attitude of a student, and so on. Many medical schools followed the recommendation and some schools included a problem solving type test or skill's analysis tests.

The National Examination for Physician's Licensure for practice has been a target of severe criticism for many years. Consequently, efforts to improve the quality of questions have been constantly undertaken by the Ministry of Health and Welfare.

Our Society Committee on this issue, chaired by Dr. Saichi Hosoda, has conducted research on the quality and the severity of questions through cooperation of several medical schools every year. Thus, young graduates and senior instructors from about 10 medical schools examine the national examination immediately after it is conducted. The results are analyzed by a modified 'Ebel method' and sent to the Ministry of Health and Welfare for feedback.

Continuing medical education is certainly

important issue. The Japan Medical Association and each society of medical specialties conducts a variety of refresher courses for general practitioners and specialists. Unfortunately, at present, most courses are rather short and mostly of a didactic nature. There are efforts made, although on less common occasions, for more effective practical courses. The Committee of our Society, chaired by Dr. Nobuya Hashimoto, consists of members representing different societies, namely, the Japan Medical Association, teaching hospitals, medical schools and primary care physicians.

4. Workshops for Teacher Training

In 1994, we celebrated the 20th Anniversary of the Workshop for Medical Teachers. The Workshop is now sponsored by both the Ministry of Health and Welfare and the Ministry of Education, Science, Sports and Culture. For 20 years, the workshop has produced 30~40 graduates every year for a total number of more than 700. Many of them became real powers for medical education in medical schools and in teaching hospitals. Some of them became core persons of the Japan Society of Medical Education as executives or as Chairmen of Committees or Working Groups. Most of the Executives of our Society have experienced the workshop either in our country or in the Regional Teacher Training Center in Sydney. Many workshop graduates also organize workshop for teacher training in their own school or hospitals.

The Japan Society for Medical Education and the Japan Medical Education Foundation have both supported the Workshop since its beginning 20 years ago. We now recognize the strong impact of such workshops on the participants and its effectiveness in improving medical education at many different levels and many institutions.

5. Changes in Medicine extending over Different Directions: Conventional Medicine, New Areas of Analysis and Areas of Integration

Conventional medical science and medical care certainly making great progress. Conservative treatments are assisted by pharmacological, pharmaceutical and pathophysiological developments, while surgical interventions are more constructive-plastic and functional, rather than just invasive and destructive. Analytical medical science are now exploring entirely new areas to find secrets in the cells, chromosomes and genes. They are, however, exciting as well as dangerous. Integrative medicine, on the other hand, looks for more and more integration including large areas of rehabilitation, socialized and behavioral medicine, and ethical issues. These change in medical science and medicine are reflected in changed to the curricula in medical schools. The changes are also reflective of the changes in the objectives of medicine. The objectives of medicine seem to have been much clearer in the past. Now, less clear objectives result in diversities of the curriculum in medical schools.

6. Medical Education for World Health

Our country is, may I say, one of the most fortunate countries in the world especially in medicine and medical care. Thus, the number of physicians are close to the ideal level. Since the number of enrollments to each medical school to improve the quality of teaching and learning.

In Asia, there are many developing countries. They need more doctors, comedical workers, facilities and supplies. Both Korea and Japan are in a position to cooperate for benefit of these countries.

Among many, supplying health manpower is one of the most important issues in improving medical

care in developing countries. We are accepting mostly postgraduate students from Asian countries. We have been trying to prepare better conditions and to provide stronger support for them. Since living in our country is quite expensive, governmental and private grants or fellowships are needed. More student numbers should be accepted and supported. Excellent students should be selected and supported by qualifying for fellowships.

Sending clinicians to those countries with an extreme shortage of doctors may be more efficient and effective way to improve the situation. Especially for long-lasting successful effects in medical care for these countries, sending teachers/instructors may be more useful and efficient than accepting trainees. Visiting instructors will work in medical schools or in hospitals to teach students and for training young physicians.

We should have an organized system to develop such cooperation with developing countries in medicine. I am now trying a small volunteer action in Indonesia. Let me illustrate the situation. In Indonesia, there are only 400 ENT specialists for 200 million people. We know there are many chronic ear diseases including cholesteatomatous otitis media, which requires surgery for treatment. Unfortunately, most ENT surgeons in Indonesia specialize more in head and neck surgery than in ear surgery.

We have just started a cooperative effort on ear care with the University of Indonesia in Jakarta. The emphasis of this cooperation is on both otoaudiological examination for precise indication, and microscopic ear surgery. They will accept a pair of instructions from Japan for several years to train young ear surgeons in the university hospital and some other teaching hospitals. We hope this project will continue successfully for several years, then finally be developed on a larger scale expanding to many other islands of Indonesia.

For those who are interested in health and medicine, cooperation with the World Health Organization is important and indispensable. Here is another example in my specialty. In March, 1994, the Regional WHO office in Manila held a working group study for prevention of deafness and hearing impairment in the Western Pacific Region. Representatives from eight countries in this region attended. Discussions were useful and follow-up is planned.

It is clear that medical education for world health is an absolute necessity. To satisfy the demand, we should create a new curriculum to attract undergraduate students to international medicine. We should prepare more occasions to allow both undergraduates and graduates to be exposed to developing countries. The students should be aware of the differences and the difficulties in these countries and they should know the methodologies of not only advanced therapeutic medicine in developed countries, but of public health and preventive medicine in less developed countries.

7. Journal "Medical Education," and White Papers

In 1994, the Editor of "Medical Education," I myself, was replaced by Dr. Akitsugu Ojima. The Journal is the same age as the Society, volume 26, this year. For one fourth of a century, the pages for each issue and the issues for a year remained the same! The Journal continues to record originals, opinions, the activities of the Society, and of annual meetings. The reports and original papers continue to improve in quality for the last 26 years.

A white paper 1990~1994 was just published by our Society, in charge was Dr. Nobuhiko Saito. Important events and documents in our country are included. Leading medical educators, mostly members of our Society, wrote the sections of the white paper. This is the 6th white paper since 1972

published by the Society.

The Association of Japanese Medical Colleges also published a white paper this year. The white paper was written by a Committee chaired by Dr. Motokazu Hori, previous Vice President and Dean of the Medical School of the University of Tsukuba. These two white papers are written in Japanese, and both describe the recent changes of medical education in Japan and the perspectives for the near future.

I will show you a chart of innovation/events for the last 25 years in Japan. Although difficult to include everything, you will see important innovations and events in medical education in our country.

SUMMARY

I briefly summarized major innovative movements and in medical education in Japan during the last 25

years. We recognized that constant efforts have been exerted and resulted in changes in many aspects of medical education in our country.

Traditional medicine is rapidly changing, developing and expanding to more sophistication and integration. The world is changing, thus the needs for medicine and medical care are different from even those several years ago. To make medical education more updated in order to meet social needs and demands, we have to install a device which constantly renews ourselves in each school and in the government. Both governmental and non-governmental approaches in cooperation seem to be necessary in our country. I have shown our non-governmental efforts from various sources. We recognize that our thinking and discussions in an environment of freedom have contributed a great deal to national decision makings.