Medical Education in Korea Needs and Opportunities

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ABSTRACT

In 1973, through the Association of Korean Medical Colleges, a survey was made of a random sample of 10% of faculties of Korea's 14 medical colleges to assess their interest in using educational sciences to help teacher's performance and students' learning. 96.63% of those questioned stated their desire to learn more about educational sciences. Details of the results of the questionnaire are in the report.

Using a frame taken from the social sciences a study was made of faculty ideas concerning the ideal and the real in medical education. Then the disparity between the ideal and the real was assessed, the cause of the disparity studied, and what might be done about the disparity was investigated.

A proposal is made for the planning of a National Health Sciences Teacher Training Program which would assist interested faculty in all of the medical colleges, and also dental, nursing, allied health colleges, to learn about educational sciences and their help in student learning and teacher performance. The goal of such a program would be that every health sciences teacher: doctor dentist, nurse, technician, etc. would be able to plan objectives for teaching, and students' learning, and would seek the best pedagogical method for reaching the objectives, and would plan and carry out educationally sound evaluation of the objectives as an integral part of faculty educational development.

INTRODUCTION

Developments in Korea during the last 10 years have brought medical education to a crisis situation. First, there is a crisis due to the relative shortage of trained medical school faculty because of the increase in medical colleges from 8 in 1960 to 14 in 1973. Second, there has been a crisis in teaching and learning because of the very rapid increase in the number of medical students. In 1960 there were 670 medical graduates. In 1972 there are 1,300 students enrolled in the premedical classes. Third, there is a crisis of rising expectations for health care delivery at a time when only a relatively...
small percentage of the nation’s 32 million population have adequate opportunities for good health care.

The above statements refer to the medical profession. In other health sciences such as nursing, dental, and allied health sciences schools there are too few well-trained teachers, and too many students per teacher.

Collection of Data Concerning Needs and Opportunities

In the spring of 1973, 109 questionnaires were send through the Association of Korean Medical Colleges to a random sample of 10% of the present 14 medical colleges faculty. 82% responded showing a concern to improve medical education and resolve the problems which adversely affect it. The questionnaires provide accurate and reliable data for analysis and planning of educational development. 77% of the faculty were between the ages of 35 and 49. Only 20% had taught more than 15 years, and almost 1/3 had taught less than 5 years. 46% of the respondents were professors and 54% were department heads showing that many departments have only one or two faculty members. On the basis of the survey responses an analytical model was used to analyze the present situation in medical education by looking at the ideal, at the real, at the disparity, and proposing some changes which might allow the real to more nearly approach the ideal.

Some of the variables which are factors in change will be discussed in relation to changes in medical education.

The World Health Organization, through its Regional Medical Teacher Training Programs (MTTP) in Sydney, Australia, can give guidance in helping teachers in all of the health sciences become proficient in their educational skills and development. Having such a program within Korea could help the real and the ideal in medical education become more closely related.

The Use Of An Analytical Model To Study Medical Education In Korea

The results and comments in the survey are used to assess what is seen as the real
Fig. 2. An Analytical Model to Study a Social Situation

1. Look at the IDEAL.
2. What is the REAL?
3. What is the DISPARITY?
4. What is the RESULT of the disparity?
5. What is the CAUSE of the disparity?
6. What corrective actions can help change the real?
7. How do changes occur?

and the ideal in medical education. Then the disparity is noted and the causes elicited.
It is well recognized that many of the causes are outside of the abilities and expertise of medical educators. Among these might be social customs, economic and political factors. This analysis is directed toward the factors which the medical faculty can affect, especially those related to faculty educational development in teaching and learning skills.

Seven areas are selected from the survey report to assess the real and the ideal for each area in medical education.

First: medical education and physician training
1. Ideal—planned to meet national health care needs with emphasis upon national disease and health problems
2. Real—disproportionate emphasis upon diseases more commonly seen outside Korea, less emphasis upon national health problems
3. Ideal—texts, references related to national health needs
4. Real—many English texts-unrelated to Korea's needs
5. Ideal—uses a standardized Korean medical language
7. Ideal—adopts educational ideas to Korean needs, customs, character, and situation
8. Real—imitates and imports many overseas medical problems which do not fit Korea's needs
9. Ideal—medical college graduates receive further training within Korea
10. Real—limited opportunities for training push medical graduates overseas for internships and residencies

Second: medical college faculties are:
1. Ideal—energetic, industrious, active in teaching, research and service activities
2. Real—fatigued by heavy service responsibilities, unable to do good research because of lack of funds, time, facilities and, sometimes, training.
3. Ideal—scholars keeping up with new developments and contributing new knowledge to their specialties
4. Real—limited in understanding and speaking English as an international language; limited professional contacts, and reading
5. Ideal—enough teachers to carry teaching, research and service responsibilities
6. Real—understaffed and overloaded causing faculty to seek less frustrating and stressful situations
7. Ideal—provided with adequate financial support
8. Real—must seek additional support for family needs
9. Ideal—adequate equipment, working space to give a high standard professional performance
10. Real—without basic equipment and space for research, teaching, and service requirements
Ideal—subject to evaluation and feedback from peers, administrators, students; able to receive and act positively upon the same
Real—subject to conservative social customs which limit behavior directed toward change

Third: The basic sciences are seen as follows:
Ideal—integrated with clinical sciences
Real—confined to own area with lack of interdepartmental communication among basic scientists and between basic and clinical staff because of tradition.
Ideal—goal is presentation of core material for physicians
Real—concerned about training basic scientists
Ideal—adequately supported with personnel and funds, facilities
Real—concerned about lack of above and disparity cf. clinical income.
Ideal—source of training for basic scientists, teachers
Real—students must complete clinical years and military duties before specialization in basic science
Ideal—given emphasis in clinical presentations
Real—frustrated by communication and personality difficulties in contacts with clinicians “territoriality”

Fourth: The clinical sciences are:
Ideal—taught through patient contact—direct experience
Real—taught through lectures. No student space in out-patient dpt. or hospitals. Staff too busy
Ideal—Taught in community and university hospitals
Real—Rarely taught in community hospitals because of lack of transportation, funds, time, staff

Fifth: Educational content in medical college curriculum is:
Ideal—produces humane, concerned physicians
Real—unrelated to patient’s personal feelings, or student’s emotions, or to either’s behavior
Ideal—based upon diseases and medical problems in Korea
Real—not based present Korean medical statistics
Ideal—directed toward life-long learning and self evaluation
Real—relies on “spoon feeding” and the unscientific concept of the teacher “making the student learn”
Ideal—includes learning in social and behavioral sciences
Real—such is the exception
Ideal—scientifically developed curricular content
Real—content result of departmental pressures, interests

Sixth: Educational methods:
Ideal—avoids “notebook lectures”
Real—too often the teacher repeats lectures using notes ignoring contemporary educational developments
Ideal—uses group discussion and participation techniques
Real—avoids student discussion and contribution to learning
Ideal—emphasis upon self-learning, use of audiovisuals
Real—lack of materials, space for study, audio-visual aids. Customary to study only from lecture notes.
Ideal—each medical school share standardized teaching materials related to
Korea's medical situation
Real- absent communication among medical colleges with lack of exchange of teaching materials
Ideal- medical education insures the desire and attitudes needed for life long study and educational development
Real- training directed toward passing examinations with the idea that learning ceases after the examination

Seventh: Comments about students:
Ideal- discipline themselves for active self-improvement
Real- regarded as being too immature to carry adult responsibilities, limited change for self growth
Ideal- know and perform duties as professional physicians
Real- have very little training in professional duties
Ideal- are humane, considerate, dedicated to patient welfare
Real- limited in access to teachers modelling concern for patients as persons needing humane care.

The next step in the development of the analysis of the current situation in medical education is the examination of the differences between the ideal and the real and assessment of the effect of these differences upon medical education. A review of the above material shows many wide differences between the ideal and the real which make many challenges to those who would decrease these differences. Because the survey is one of medical college faculty perceptions, the results of the disparity between the ideal and real are confined to these teachers, those who train tomorrow's doctors.

First, there is discouragement. One said, "There is no solution to the problems of medical educational facilities and financing:
Second, there is disillusion as expressed in the comment, "Keeping quiet is the only way for advancement."
Third, there is faculty attrition-"most go outside or overseas"
Fourth, there is frustration- "the problem of the teacher who relays outdated information"
Fifth, lack of "good teachers", "good teachers are very rare"
Sixth, low morale as expressed in comments about the lack of funds, facilities, equipment, and comments about fatigue, weariness
Seventh- dissatisfaction on the part of patients was expressed by faculty comments about the needs for better community health, and concerns for meeting society's general health care needs. To stop the study here would give only a very negative effect. To follow the model's scientific pattern it is important to assess the causes of the differences between the ideal and the real. Five areas or factors in the causes are looked at as representative areas in which there might be changes in the next few years, changes which could have positive effects on the educational development of faculties in the medical and other health sciences.

First, personnel: Medical school teachers are not trained in educational skills A program could be developed to develop faculty educational skills including emphasis upon communication and setting of educational objectives, planning methods to reach those objectives, and then evaluation of the degree of attainment of the planned goals.

Many departments are staffed by only one or two professors with a few instructors or teaching assistants.
ship is often regarded as a lifetime sinecure. A program of setting of departmental annual goals and objectives with a yearend evaluation of the attainment of the set goals would help raise the morale and performance standards.

Second, Plant (facilities): The medical schools need more facilities to meet teaching and research needs. The teaching hospitals have no, or only minimal, facilities for student teaching, and examination of patients. Often planned areas are taken for the care of overflow patients. However, a study of the use of the available facilities often shows that they are tremendously over-used some parts of the day and stand empty at other times. An over-all scheduling plan could be developed for a better use of available facilities.

Third, Program: The present two year term for medical college deans prevents effective long term planning. In contrast, departmental chairmen are rarely changed, although in some schools they rotate every two years. There is an opportunity for extension of the present two year term, and the changing of departmental chairmen when helpful for departmental growth, interdepartmental cooperation, and better integration of basic and clinical sciences.

Fourth, Government: Medical Colleges are under the supervision of the Ministry of Education, but the university hospitals are under the Ministry of Health. Strengthening the formal and informal channels of communication between the two ministries would improve medical education and could help in the development of a national health care plan, which is so greatly needed.

Fifth, Society: Most doctors work alone in their private clinics where private patients pay a direct "fee for service". Responsibility for health care is confined to the immediate and/or extended family. Economic problems cause delays in seeking treatment. Because society is family oriented, consideration could be given to developing health care plans which would cover the extended family as a first step. Also national health plans which would encourage doctors to work together to provide comprehensive community health care would improve standards of patient care.

If the spread between the ideal and the real is to be decreased, and if the results of the disparities are to be changed, it will be necessary to have changes in medical education.

Types of Change

The social scientist describes three types of social change: first, by evolution: Contemporary ideas spread around the world with the speed of light through satellite communication, transistor radios, television, the press. These new ideas bring new expectations. Medical education is evolving new ways to meet old problems. There are changes in the traditional acceptance of the priority of age in selecting leaders.

The second type of social change: Historically, Korea has withdrawn from the stresses and strains imposed by adjacent powerful nations by becoming a "hermit Kingdom". More recently the nation has sought to develop overseas contacts. The present survey showed a concern for the "Koreanization" of medical education. Even though the exclusive use of the national language becomes a barrier to international communi-
cation, the comments in the survey included requests for a greater use of Korean and less acceptance of outside ideas until they have been adapted to local needs and problems.

The third type of social change is by conflict. Labor is becoming more aware of the need for industrial health. There are good health laws which seldom have been enforced. Labor may become more militant to secure adequate health care. Also many of the people who have not been able in the past to receive health care are now demanding their fair share of health services. Response to just requests can prevent conflict.

**Paradoxes in Medical Education, Health Care Delivery in Korea Today**

First: Problems of infection, parasitic infestation, malnutrition are major Korean health problems. Medical education puts major emphasis upon other problems which are relatively of minor incidence.

Second: The rural areas lack good health care, but annually many doctors leave Korea because of economic, social and other reasons.

Third: The family is the strongest social unit in Korea, but recent medical service development has been oriented toward the community rather than toward the family.

Fourth: Confucian society is conservative, traditionalist, and hierarchial in structure, preserving the national heritage. Modern technical and scientific and democratic ideas bring stress to education and society.

Fifth: Change is inevitable, particularly if the differences between the ideal and the real are to be decreased. How can the good in the real and the ideal be brought into a closer relationship?

**Planning A Program in Educational Development for Teachers in all of the Health Sciences—Medicine, Nursing, Dentistry, Allied Health etc.**

97% of the surveyed medical college faculty requested assistance in the development of educational skills. A program for such development is proposed below.

**Purpose:** To help teachers in all of the health professions acquire and develop educational competencies to better help their students learn, and ultimately to improve health care for all.

**Data gathering:** A randomized survey of 10% of the faculties in 14 medical schools elicited needs, and defined issues providing data for future planning.

Needs mentioned included:
- better performance as teachers
- more communication
- more planning together as educators
- more evaluation of the educational situation
- standardization of the courses

Issues mentioned included:
- Koreanization of the medical language with adaptation of teaching, texts, references, audiovisuals to national health needs
- faculty development in teaching and research skills
- improved content in teaching
- improved reference materials, teaching materials
- improved basic science teaching, research, staffing
- better and more practical experience in the clinical sciences
- better community medicine and health
care
better student guidance, faculty-student contacts
better pre-medical training
better teaching, research equipment, funds

There are two concepts which are a part of the social situation in which medical educators are training health professionals. First, is the concept that change is inevitable and is real and a vital factor in this traditionally oriented society. No longer is tradition the only determinant of national policy. There is an active seeking of modern ideas in social development.

Secondly, the concept that some resolution of the disparity between the ideal and the real is possible. With the acceptance of such concepts as facts it becomes possible to plan for measures to meet the above needs and issues. The first step in planning requires the "internalization" of the above two concepts- that of the inevitability of change, and of action to resolve the idea-real disparities.

When the two concepts become the "property" and are owned by the faculty it becomes possible to plan for improvement in professional performance by better planning, communication, and evaluation. Only the patient, persistent actions of the medical college faculty working on the basis of reliable facts and information can effect the changes needed and desired.

Using the survey, the following issues were prioritized according to their incidence among the comments. In order of priority they were listed as:

First: Koreanization of medical education
Second: Faculty educational development
Third: Better instructional materials and equipment
Fourth: Better faculty-student relationships and contacts
Fifth: Better health care system

These all fit into a program of faculty educational development which meets the felt needs of the participants.

What are some of the methods by which such a program could assist health sciences teachers in internalization of the concept of change, and of their ability to reduce the disparities between the ideal and real? For example, such a program provides a safe, non-threatening laboratory for experiential learning of more effective teaching, learning styles. It provides multiple methods of resolving problems which, if not resolved, tend to immobilize the participants thinking and ability to act.

Concrete assistance from funding sources for instructional materials and equipment could improve faculty morale which is vital for action to improve professional performance.

Workshops on communication, listening skills, use of feedback, are one method of improving communications. A medical college association news sheet, or articles in the Journal of the Korean Medical Association, or other professional journals could be related to the development of educational competencies.

Professional "task forces" set up by the Ministry of Health or of Education, or by professional associations to research on methods of improving the health care delivery system could be used.

The Association of Korean Medical Colleges could authorize a committee to include medical and educational scholars to help with the Koreanization of medical terminology.
### Fig. 3. Force-field analysis of medical education forces in Korea

<table>
<thead>
<tr>
<th>Minus factors</th>
<th>Plus factors</th>
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<tbody>
<tr>
<td>Conservative tradition</td>
<td>Contemporary social, economic pressures and expectations</td>
</tr>
<tr>
<td>Tendency toward isolation</td>
<td>TV, radio, telephone, printing</td>
</tr>
<tr>
<td>Societies emphasis on age</td>
<td>Scientific, technical expertise</td>
</tr>
<tr>
<td>Bureaucratic gov't system</td>
<td>Prof. societies cut &quot;red-tape&quot;</td>
</tr>
<tr>
<td>Rapid personnel turnover</td>
<td>Studying term length</td>
</tr>
<tr>
<td>Lack of support</td>
<td>Economic improvement: 3rd 5-yr plan raises health budget</td>
</tr>
<tr>
<td>Lack of Korean representation at international meetings</td>
<td>2 WHO trained faculty at U. Illinois</td>
</tr>
<tr>
<td>Lack of trained personnel</td>
<td>2 attended WHO regional center in Sydney, 10 to go</td>
</tr>
<tr>
<td>Inter-university rivalry</td>
<td>As above—WHO fellowships</td>
</tr>
<tr>
<td>Poor communication</td>
<td>AKMC formed for fellowship and improved communication</td>
</tr>
<tr>
<td>Political climate, tensions</td>
<td>Communications are improving</td>
</tr>
<tr>
<td>Lack of equipment, materials</td>
<td>Public opinion</td>
</tr>
<tr>
<td>Lack of personnel for new schools</td>
<td>WHO revolving fund to order equipment with local funds</td>
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<tr>
<td></td>
<td>Plans for a teacher training program and center</td>
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</tbody>
</table>

Another study group could do educational research on the standardization of evaluation methods for health professionals.

Other "task-forces" could develop instructional materials with emphasis upon national health needs. The surgeons have already prepared a text of surgery. There needs to be a "clearing house" for instructional materials to expedite the sharing of information and materials needed by every school.

Finally, among methods of action to help resolve the disparities between the ideal and the real is the development of a viable, active, and well-supported health professionals teacher training program, and with time, a center for such activities. This center could lead in research in health sciences education for Korea's health care needs. It could train faculty to develop educational growth programs within their own colleges. This is one constructive way of meeting the challenges of better professional performance, better communication, better planning for the future of medical education.

### Implementation of a Program of Educational Development

A first step is a "Force-field analysis" of those forces which are pushing toward such a program, and those which could push against the program. Research has shown that it is best to try to decrease the negative forces rather than increase the positive forces.

A suggested time chart for the implementation of the program and later a center, involves three phases of implementation.

**Phase I** This is a time of review and assessment of the factors and variables of change as related to establishment of a National Health Professionals Teacher Training Center for Korea. Emphasis is placed upon the initiation, and legitimization of the idea.
Phase II is the initial implementation of the actual program including internalization of the concept, translation and development of educational materials adapted to Korea's health care needs with emphasis upon materials for professional educational development.

During the next 2 years: workshops to assist faculty develop educational skills could be carried on in each of the 14 medical colleges. At the end of 2 years (1975) there will be two trained medical educators to assist in a national teacher training center. Also, by then, several faculty members will have had experiences in the Regional Medical Teacher Training Center in Sydney, Australia and could be available for program assistance.

Phase III (by 1975) is the institutionalization of the program at a national center where there would be:

short term workshops in educational skills
3-6 month training programs for faculty educational development leaders one year programs to train specialists in medical education. By 1977, two years after the organization of the center, 3-6 months training programs for faculty to develop similar programs in their own colleges of medicine, nursing, dentistry, allied health sciences should be functioning.

By 1979-1980 the one year program of specialization in medical education to develop local college departments of medical education should be available to the health sciences colleges.

By 1982 the first Master in Health Sciences Education should be graduated in Korea-trained in Korea to meet Korea's medical education needs for specialists in this field. By this time the National Health Professionals Teacher Training Center should be on a completely self-sustaining basis.

For such a center to be developed it is important to assess the factors, or variables, which are crucial to making the changes needed to develop and establish the health professionals teacher educational development program.

Eight Variables which are Factors which Affect the Success of Change

First: Build on a strong and well-studied knowledge base. The ideas expressed here are based upon 17 years experience in Korean medical education at Yonsei and Ewha Woman's University Colleges of Medicine. Also information has come from a six-weeks medical teacher training program at the U. Illinois, Chicago, Ill. in 1967, and the one-year training as a WHO fellow in medical education there from 1972-73. Other sources of information are the 1971 medical college team survey, the 1st National Medical Education Seminar in 1971, and 1973 survey of 10% of medical college faculty as above.

Second: Assess the medical education system for orientation toward tradition or toward change. Since May, 1961 the leadership of Korea has been oriented toward progress while remembering the need to preserve traditional customs and cultural processes.

Third: Develop a process for the institutionalization of the innovation. The organization of an educational development center needs the cooperation and help of the national government with the World Health Organization through its regional office in Manila. Also the Association of Korean Medical Colleges could provide leadership here. The WHO medical educational consultant to Korea serves in a liaison function between WHO and the government. He also is a member
of the Association of Korean Medical Colleges and could be a very helpful consultant in the development of the center. The Association of Korean Medical Colleges reaches each college and is important in internalization of the idea of educational development. The nursing, dental and allied health faculties have professional societies which could help internalize the need for educational growth of teaching faculty.

Fourth: Assess the stimuli for change. The educational seminars of the Association of Korean Colleges, the occurrence of international meetings in Korea, the WHO program of training fellowships, the faculty development program of the China Medical Board, as well as contemporary communication developments, have been active stimulants for change. Also several members of the medical faculties are deeply interested in improving their educational skills.

Fifth: Assess the demands of external agencies and systems upon the center and its program.

Sixth: Assess the communication system.

The traditional methods of communication are usually completely closed with information confined to the family members and the minimal number of persons who must receive the information. This closed system leads to frequent use of rumors and the development of informal methods to by-pass the accepted formal methods of communication. The fact that the formal methods are very limited and that informal channels are frequently used leads to many devise situations among medical faculties. The whole area of communication is one requested to have top priority in faculty educational development, especially in improvement of interpersonal relationships.

Seventh: Assess the decision making process. The formal decision about the educational development center will be made by the Minister of Education along with the World Health Organization, and the Association of Korean Medical Colleges.

There are two types of decision making processes: one which leads to collaboration and cooperation and the other which leads to
Fig. 7. Types of approach to decisions

<table>
<thead>
<tr>
<th>Distributive</th>
<th>Integrative</th>
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<tbody>
<tr>
<td>1. Behavior directed toward own goals</td>
<td>1. Behavior directed toward group’s common goals</td>
</tr>
<tr>
<td>2. Secrecy</td>
<td>2. Openness</td>
</tr>
<tr>
<td>3. Understands but disguises personal needs so</td>
<td>3. Accurately understands personal needs and</td>
</tr>
<tr>
<td>group won’t know</td>
<td>accurately presents them in the group.</td>
</tr>
<tr>
<td>4. Unpredictable—uses surprise</td>
<td>4. Predictable, appropriate flexibility in behavior, no surprises</td>
</tr>
<tr>
<td>5. Threats, bluffs</td>
<td>5. No threats nor bluffs</td>
</tr>
<tr>
<td>6. Behavior tord commitment to a position, uses</td>
<td>6. Behavior tord finding solutions to problems; uses logical and innovative processes</td>
</tr>
<tr>
<td>irrational, non-rational arguments</td>
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</tbody>
</table>

- conflict and competition. In the first, the distributive type, whatever one group wins, all the rest lose. In the second, the integrative type, all persons integrate their resources toward a common task.

To be successful in reaching all of the health sciences colleges and faculties it is necessary that, as far as is possible, decisions about the center be made in a logical, rational process as integrative decisions to secure wide spread collaboration and cooperation, avoiding competition and conflict.

Eighth: Identify the maintenance process.

The first area to which the center could look for its maintenance is the Ministry of Education representing the government. This support could be through helping faculty to attend regional workshops, the invitation of WHO and other consultants to participate in national and local workshops, the planning for budgetary and logistical assistance, assistance with necessary papers and permits to implement the program of educational development.

A second area of assistance in the maintenance function of the center is WHO through its regional office in Manila which, with the assistance and cooperation of the Ministry of Education, could provide training fellowships, opportunities to purchase equipment and instructional materials, and provision of consultants for center programs.

The third group needed to maintain the center is the Association of Korean Medical Colleges as a liaison group for the center with the individual colleges, especially through the Council of Deans.

Ultimately, it is the program itself and its fruits which will determine the success of the center. If the program meets the needs and hopes of the health professionals faculties for their educational development, it will succeed. It does not, no outside help will or can, maintain such a center.

Ninth: Is there a systematic articulation of the system (the center) with the outside system (the WHO regional center e.g.)

These are the steps to prevent an educational development center from becoming provincial and ingrown by helping it become a part of the world community of medical teacher training programs through the World Health Organization, the World Federation of Medical Colleges and other professional groups of medical and health sciences educators. Korea has much to contribute to world professional groups. There is need for our educators to have opportunities for training at internationally recognized excellent centers. This “linkage” will mutually
strengthen the educational development of health professionals who are teachers, will make better learning opportunities for our students, and will, ultimately, improve the health care of every citizen of Korea.

Judgements and decisions to be considered in planning a national center for educational development for faculties in the health professional colleges.

First, judgements about the program:
Is the site conducive to innovation and educational research? Is there academic freedom in the area? Is the administrative group committed to the success of the program? Is there assurance of long-term commitment to the program?

Second, judgements about personnel:
Are there trained specialists in medical education available for staffing and consultation? Are trained educators available to assist with program and staff work? Are there clerical staff to expedite the work?

Third, judgements about the plant site: Here reference is made to WHO Technical Bulletin No. 521, p. 29 which outlines the guidelines for health sciences teacher training centers. In the location convenient to the participants? Is the equipment adequate for the program?

Fourth, judgements and decisions about the finances of the center: How is the budget developed? Are there adequate funds for the program, the personnel, and the plant? Are the medical colleges and other health sciences professional colleges committed to the support of the budget? What percentage of the program costs must come from the participant fees?

These above are only a few examples of the types of questions which will be asked and answers found before the detailed planning can be completed and a national center for educational development of health sciences colleges faculties can be established.

Appreciation is expressed to Dr. Anthony Dikema, Vice Chancellor of the University of Illinois at the Medical Center in Chicago, who provided the background social structure upon which the analysis is based. Also appreciation is expressed to Dr. M. Iliyas, WHO medical educational consultant to Korea, Drs. Il Soon Kim and Ernest W. Weiss of Yonseiu University College of Medicine, and the Council of Deans of the Association of Korean Medical Colleges as well as the medical colleges faculties who helped with the survey.

It is hoped that this report may contribute to making the real in medical education more nearly approach the ideal.

Summary of a survey of a random sample of 10% of the medical colleges of Korea for the Association of Korean Medical Colleges August, 1973. Roberta G. Rice, M.D.
Il Soon Kim, M.D.
M. Iliyas, M.D.

82% of the 109 persons in the sample responded to the questionnaire.

1. Age
   - 30-34 10.11%  50-54 6.74%
   - 35-39 24.72%  55-59 3.37%
   - 40-44 30.34%  60-64 2.25%
   - 45-49 22.47%

2. Number of years served as faculty member
   - Under 6.74%  15-19 13.48%
   - 1-4 29.21%  20-24 5.62%
   - 5-9 20.22%  25- 2.25%
   - 10-14 20.22% No response 2.25%

3. Present position on the faculty
   - Instructor 19.10% Professor 46.07%
   - Asst. Prof. 20.22% No response 1.12%
   - Assoc. Prof. 13.48%
4. College responsibilities (some hold more than one responsibility)
   Faculty member only 35.96%
   Departmental chairman 53.96%
   Academic dean (13) 14.61%
   Student dean (3) 8.99%
   Dean (4) 4.49%
   Hosp. Supt. 2.25%
   No response 1.12%

5. Committee membership
   Not a member 47.19%
   Am a member 50.56%
   On educational planning or curriculum committee 17.87% (of 89)

6. Do you know how the Association of Korea Medical Colleges is organized and what it does?
   Know well 29.21%
   Heard about it but don't know well 55.06%
   Do not know 13.48%
   No response 1.12%

7. Have you ever attended any of the following seminars of AKMC?
   No 78.65%
   1st Med. Ed. Seminar 8.99%
   2nd Med. Ed. Seminar 10.11%
   Workshop in Med. Ed. 10.11%
   No response 2.25%

8. Have you received the proceedings of the seminars?
   No 41.57%
   Yes-first seminar 40.44%
   second seminar 37.07%

9. If yes, how thoroughly have you read them?
   (35 persons received reports)
   Not read 6.06%
   Read partly 69.70%
   Reviewed generally 87.88%
   Read thoroughly 12.12%

10. What is your opinion of the recent curricular changes?

11. What is your opinion on the recent emphasis on Community Medicine?
   Agree 37.08%
   No objection 29.21%
   Object in part 15.73%
   Completely object 0.00%
   Don't know 15.73%
   No response 1.12%

Questions 1, 2 and 4 through 11 were added to the original questionnaire to secure data for the Association of Korean Medical Colleges regarding special information. The other questions were prepared to assess faculty interest in educational development programs.

Question 12. As a medical educator I:
   Wish to learn more about education from professional educators 24.72%
   Wish to continue learning from my own experiences 7.87%
   Wish to learn from medical educators, professional educators as well as from my own experiences 67.42%

82, or 92.13% of the medical faculty requested help with teaching skills.

12. With regard to "planning instruction" I would like to learn about:
   Preparing objectives 12.36%
   Selection of content to fit objectives 30.34%
   Sequencing of content 20.22%
   Principles of planning instruction 8.99%
   Need more information 39.33%
   Not interested 0.00%

14. With regard to "preparation of instructional materials" I would like to learn about:
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Preparation of written materials which students can use for self-study 43.82%
Audiovisual aids for independent use 33.70%
Programmed instructional materials 20.22%
Need more information 22.47%
Not interested 2.24%
No response 1.12%

15. With regard to “methods of instruction” I would like to learn about:
   Lectures 11.23%
   Group discussion 21.34%
   Self-directed learning 28.06%
   Programmed learning 19.90%
   Need more information 29.21%
   Not interested 1.12%

16. With regard to “educational research” I would like to learn about:
   Preparation of research proposals in educational development 38.20%
   How to read and understand current statistical research reports better 28.32%
   Need more information 39.32%
   Not interested 1.12%

17. With regard to “evaluation” I would like to learn about:
   Construction of completion items 35.73%
   Construction of multiple choice items 13.48%
   Evaluation of clinical skills 30.33%
   Interpretation of test results 33.70%
   Methods of grading 19.10%
   Need more information 30.33%
   Not interested 2.24%

18. In your opinion how useful do you feel the contributions of educational science could be to your teaching performance and your student’s improved learning?
   Very useful 31.46%
   Useful 65.46%
   Slightly useful 1.12%
   Not useful at all 0.00%
   Need more information 1.12%
   No response 1.12%

86. or 96.63% of the sample of faculty tested felt that educational sciences could contribute to their teaching performance and learning.

19. If time were not a factor, I would like to participate in training programs lasting:
   One week 47.19%
   Two weeks 16.85%
   Four weeks 13.48%
   More than four weeks 12.36%
   This is not necessary 3.37%
   No response 4.49%

20. Asked for comments and suggestions on the important factors in medical education which need to be changed or improved. These are summarized below: They are listed in priority of incidence.
   Non-Korean influences on texts, language, training 69.66%
   Faculty 49.43%
   Clinical sciences 32.58%
   Reference materials 47.19%
   Basic sciences 21.34%
   Community medicine 17.98%
   Students 14.61%
   Premed training 13.43%
   Research 12.36%
   Teaching equipment 12.36%
   Language needs 11.22%
   Med. Education system 10.11%
   Internship 7.87%
   Evaluation 6.75%
   Laboratory training 4.49%
   Financing 4.49%
   Continuing education 3.37%
   Methods of education 3.37%
   Educational facilities 3.37%
   Hospitals 2.25%
   Indpt. and self learning 2.25%
Gen'l comments 2.25%
No comments 19.10%

Illustration of some of the comments made:
About Koreanization of medical education (62 comments):

Imitation of other countries is tiring and should be cleaned out. Learn from other countries, and adjust learning to Korean situation. A Korean medical terminology and content is needed. Research should be Korean based. We must understand we are Korean educators and students. We import complex foreign problems. We need to avoid losing opportunities (for international contact). We need to attend overseas meetings and have study opportunities overseas. Copying overseas activities is not always improvement. It should fit the pace of Korean style. Often we only "lick the outside of the watermelon".

About medical college faculty 44 (comments):
About financial support—we need some guarantee of living expenses.

About faculty training and development—We need to improve faculty quality. Send faculty abroad for meetings and for training. Give faculty better treatment. Use more part time faculty. Faculty has low morale, lack of enthusiasm and need encouragement and academic independence. There is a shortage of faculty, especially in the new schools. We need better faculty recruitment methods. Clinical faculty tend to monopolize.

About faculty attitudes: Need to avoid the illusion of being powerful enough to influence national policy. Need to develop less authoritative attitudes. There is the problem of the professor who doesn't study and keep up in his field holding his position and blocking younger professors. Students and professor are a tremendous distance apart. There is lack of peer evaluation. Keeping quiet is the only way to advance. Most of those who speak up leave. Famous doctors are not necessarily good educators. Good teachers are very rare. There is too much ritualism in making rounds.

About the clinical sciences (29 comments):

There is need for more practical clinical experience. Need to improve teaching. There is too much overlapping. Start the clinical experience earlier. Put more emphasis upon internal medicine, surgery, pediatrics, and ob-gynecology. Put less emphasis upon the specialties. Teach specialties as undergraduates. Shorten the academic years. Be more selective in university admissions. Have more practical experience and less theory. Increase the autopsy rate at the University Hospitals. Give clinical training also in the community hospitals.

About the educational content of medical ed. (26 comments):

There is a need to humanize education so that we produce humane doctors rather than dehumanized technicians. We need reliable statistics about the incidence of disease situations within Korea. Avoid spoon feeding. Emphasize the Korean situation using well planned content related to the Korean situation. Improve the medical teaching program. Emphasize the core knowledge, the essentials. Change and improve the content. Evaluate how content is selected. Include more forensic medicine. Include more sociology and sociological courses.

42. or 47.19% of the comments asked about reference materials for teaching.

There were 19 comments related to the basic sciences

We need better correlation of the basic and clinical sciences. We need better support of basic education to retain the basic scientists. There is a lack of basic science education.
It needs improvement. Improve the curriculum. Right from the beginning those who plan to be basic science specialists should be separated from those going into the clinical sciences. We need more emphasis upon the basic sciences. We need better basic science research and laboratories. We need better qualified basic science professors. Simplify the basic sciences to a core curriculum.

Comments about Community Medicine said: Start it, emphasize it. Why have it? We need better community care. Teach students in community hospitals as well as university hospitals. We need to re-evaluate the social needs and situation. Without the leadership of the government in the development of community medicine such activity is dangerous. We need adequate education to produce general practitioners.

Comments about students said:
They need self-discipline to improve themselves. They need to learn their duty as professional persons. There are too many students coming too quickly. They need to study their purposes in studying medicine. Need to assess their outlook on life. Need improvement in their personality. Need humanization.

Pre-medical education related comments asked that it be simplified, carried out smoothly, be reorganized, shortened, re-evaluated, improved. One asked to make it a part of the medical school.

Comments about research stated:

Need to be more active and strict in basic investigations. Faculty research funds need to be provided, increased. There is no research. Basic science research and labs need to be better. Education and research should go together with equal support.

10 comments were related to the need for a standardization and Koreanization of the medical terminology.

9 comments about the system of medical education mentioned the need of a generalized investigation of the system with strengthening and improvement and planning. Public opinion is totally ignored. Can make improvement and changes through community medicine. Re-evaluation of educational results is need. We seek rapid improvement. Need improvement in the quality.

7 commented about the internship asking that it be included in the medical school years; have premed 1 year, medical school 4 years, and 1 year practicum; that there be an examination at the end of internship.

6 comments about evaluation asked for avoidance of an education based only upon examinations; review and re-evaluate the graduate schools of medical education; re-assess the relationship of undergraduate and graduate education; re-evaluate and improve the national board examinations; evaluate clinical skills.

Additional comments asked for more time and materials for laboratory teaching; increase the budget and investment in medical education; assist in the re-education of physicians; clarify the limits between general practice and specialization; improve outpatient departments; increase the numbers of charity cases.

Finally, in specific comments about education there were requests to: Avoid notebook lectures, change the amount of education by lectures, improve the teaching and laboratory facilities; improve self-learning and self-evaluation and independent study opportuni-
ties.

One person stated "there is no solution for the problem of medical educational facilities and financing" I believe, as a result of this study, that the answer is within our own careful planning, setting of our objectives as medical educators, planning our methods and then re-evaluating what we have done. When that cycle is repeated, when we use educational sciences to improve and solve our educational problems, we can bring the real more nearly to the ideal. The challenge is in our hands and we have the responsibility and opportunity to work together to strengthen medical education and ultimately bring better health care to every citizen.