

SOME SUGGESTIONS ABOUT IMPROVEMENT OF MEDICAL EDUCATION IN PAKISTAN

Pages with reference to book, From 136 To 142

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SUMMARY OF SUGGESTIONS

1. The objectives of the Undergraduate medical education and its curriculum need to be redefined to produce a Physician who can provide health care to all citizens of Pakistan.
2. Given the above objectives, Universities and Medical Colleges be allowed to develop the curriculum and instructional methods of their own choice.
3. All Medical Colleges and postgraduate Institutions be granted autonomy.
4. Institutions be given freedom to utilize physicians working in the community as teachers.
5. To reduce the large number of students in each class which is one of the causes of indiscipline and lowered standards in the medical colleges it is recommended that the college be broken up into satellite campus/new campuses. This will also UPGRADE AND IMPROVE THE HEALTH SERVICES OF A HITHERTO NEGLECTED GEOGRAPHIC AREA.
6. Some of the medical colleges be of the COMMUNITY BASED PROBLEM SOLVING type.
7. All those desiring to teach should be trained in educational methodology. Professional competence by itself does not make a good teacher. To achieve this aim more Teacher Training Centres need to be established.
8. Medical Colleges be made the nucleus of the health services of their area. As it is all serious and complicated cases are sent to medical college hospitals but no link exists between the health services and the medical colleges. What is needed is integrating the Medical College with the existing health delivery system of their areas so That they assume the leadership role of professional supervision, training and Continuing Education of Health Professionals in their area.
9. Integration of the Medical Colleges with the local Health Services will also solve the neglected problem of clinical training of undergraduates in settings outside tertiary care hospitals.
10. The number of Postgraduate training positions be increased and more institutions both in the Public and Private sector be included for such training.
11. Training in newer specialties which are poorly developed or non existent be established. Top priority in this respect should be given to the development of Family Medicine and Community Medicine.
12. A system for Continuing Education of Health Professional be established.
13. Before any of the above can be implemented major changes in the structure and function of PMDC are required.
14. The major concern of PMDC should be the quality of the medical graduates, which is the function they can perform. Curriculum design, teaching methods, appointment of teachers, appointment of examiners and the examination system are the functions of the University and should be made their responsibility.
15. Instead of official PMDC should be run by full time members who can then independently perform the watch dog function of monitoring the quality of graduates, professional standards, ethics and the quality of medical practice in general.
16. Medical College fees should be rationalized so that those who can afford it should pay full fees while the deserving students who cannot afford get full or partial remission. In recent years dissatisfaction with the present health delivery system has been expressed on a number of counts. These include (1) inequality of health cover to all sectors of the population, (rural vs urban, poor

coverage of urban slum areas), (2) unemployed physicians, (3) physicians unwilling or unable to serve in some areas, (4) large number of students in each class leading to indiscipline and lowered standard, (5) shortage of paramedical personnel and (6) physicians not trained to work under existing conditions. The above problems can be broadly classified into those relating to (1) Quantity and (2) Quality. Inadequate health cover of rural population, and shortage of paramedical staff are purely matters of quantity. So is the large number of students in each class. Problems of quantity are relatively easy to solve. The solution of the problem of shortage of paramedics is to increase the number of training programmes. Similarly the answer to the problem of large number of students in each class is to decrease their number. The solution of the problems of quality are more difficult to tackle as they involve changes in the existing thinking plus major structural changes in the way of the education of health professionals (physicians, nurses and paramedicals) is being carried out. Change is never easy. It requires extra efforts and introduces an element of anxiety arising out of the need for new adjustments. For these reasons change is always resisted by those in the existing system. Such problems are not unique to Pakistan or developing countries alone. In one form or other INEQUALITY OF HEALTH COVER is a universal problem. In 1986 an International meeting highlighting these very problems was held in Mexico. It was called 'Health Manpower Out of Balance¹. Conflicts and Prospects.' (1) Most of the items of dissatisfactions mentioned also figured prominently in the discussions at Mexico. More recently in 1988 a World Conference on Medical Education was held in Edinburgh. Selected extracts from the Edinburgh Declaration are reproduced below². 'The aim of medical education is to produce doctors who will promote the health of all people, and that aim is not being realized in many places, despite the enormous progress that has been made during this century in the biomedical sciences. The individual patient should be able to expect a doctor trained as an attentive listener, a careful observer, a sensitive communicator and an effective clinician, but it is no longer enough only to treat some of the sick. Thousands suffer and die everyday from diseases which are preventable, curable or self-inflicted, and millions have no ready access to health care of any kind. These defects have been identified for along time, but efforts to introduce greater social awareness into medical schools have not been notably successful. Such facts have led to mounting concern in medical education about equity in health care, the humane delivery of health services, and the overall costs to the society. This concern has gathered momentum from national and regional debates which have involved large number of individuals from many levels of medical education and health services in most countries of the world and has been brought into sharp focus by reports which followed from the six regions of the world and which address the basic issues. It also reflects the conviction of a growing number of doctors in teaching and clinical practice, other health professionals, medical students and the general public.' "Reform of medical education requires more than agreement; it requires a widespread commitment to action, vigorous leadership and political will. In some settings financial support will inevitably be required, but much can be achieved by a redefinition of priorities, and a reallocation of what is now available." Even before this in 1978 WHO organised an International Conference at ALMA ATA outlining an action programme for providing primary health care by the year 2000 (HFA 2000). The Government of Pakistan is a signatory to it. The Alma Ata document clearly lays down the functions that a Primary Care Physician should be capable of doing and the Edinburgh declaration is a continuation of the same process. The problems outlined above have also been discussed in Pakistan at a number of meetings³ and in editorials in this journal^{4,5}.

OBJECTIVES OF UNDERGRADUATE MEDICAL EDUCATION AND THE CURRICULUM

The sole purpose of the undergraduate programme in Pakistan should be to produce a physician who can provide health care to those living in Pakistan. If we are to meet the health needs of the coming decade and work towards HFA 2000 the general objectives of Medical Education should be to produce a doctor who will be a health care provider both in the public or private sector with potentials to become a specialist and or a teacher in the future. He should be able to provide primary health care,

assist management of secondary and tertiary care, manage and train staff, maintain information on health indices, be able to correspond and maintain accounts and work as a team member and a leader or a guide when required. The above translated into educational objectives would be something like:
to: After graduation an MBBS should be able

- (1). Manage the common illness that occur in Pakistan.
- (2). Provide immediate care in case of Emergency and arrange for their referral to hospitals.
- (3). Select for Referral all cases which he/she cannot deal with available facilities.
- (4). Learn the importance of team work and be an effective leader of the Health team.
- (5). Take measures for the protection and promotion of health of the individual, family and community.
- (6). Be a life long learner.
- (7). Uphold the moral and ethical values of islam and the health profession.

There are a number of ways in which the above objectives can be achieved. This is why there are such a large number of curricular models which are in use around the world. There is no curriculum which is universally applicable to all countries and all medical colleges. Curriculum is a dynamic and flexible document which should be responsive to the changing needs of the functions that a physician has to perform in his/her community. Around the world every medical college plans its own curriculum and keeps on evaluating it each year. Each University and College should be given the option to design its own curriculum. Medical Colleges and Postgraduate Medical Institutions should also be allowed to experiment with different teaching methods and staffing patterns. They should only be evaluated on the performance of their graduates. Granting such autonomy to Medical Colleges will allow them to fully exploit the potential of their staff and students. If the above suggestion for letting institutions experiment with curriculum and teaching methods is accepted, then a few of the medical colleges could be established on the lines of some of the newer institutions in Gulf, Egypt and Sudan where the emphasis is on Community based training as opposed to hospital based training and the teaching is done by the problem Solving Method with very little didactic lectures etc. In this model there are no Basic Sciences or other Departments and the teaching is organised around patients. The major expenditure in such a college is on building of a good Learning Resource Centre which includes a good Library. It is recommended that at least 2 or 3 new Medical Colleges be established on these lines. If this is done help would be available from WHO and other aid giving agencies. Grant of Autonomy could also solve one of the major problems of teacher shortage. At present most of the teachers in medical colleges are really part time. One of the reasons is the low scales of pay in government service and the high market price of individuals with such qualifications. One solution of the problem is to have only a small core of really full time staff who will be paid a salary and benefits commensurate with the market values. They will not be allowed private practice and the rule will be strictly applied. Such a move will also lead to a fuller utilization of physicians in the local community who are willing to teach. The bulk of the teaching then could be done by Honorary or part time staff drawn from amongst the physicians practising in the Community. A teaching institution would then have only one full time Professor as Head of each department. He/she will be supported by one full time Associate and a full time Assistant Professor. All other Professors, Associates and Assistants will be either honorary or part time. For service work each ward will have full time Registrar/s. In addition there will be a number of trainee Residents and House staff.

MEDICAL COLLEGE FEES

The fees presently charged have not been changed since 1947. There is no reason why those who can easily afford should not pay the full fee. Deserving students who cannot afford to pay should be given full or partial remission. If the institution collects fees it will also be in a position to provide the really

poor with extra financial support.

TEACHERS AND TEACHER TRAINING

At present the requirements for appointments as Teachers and Examiners in various Medical Colleges is set by PMDC. The major criteria in this document is on postgraduate qualification in the subject and the equivalence of qualifications acquired from different countries. Postgraduate qualifications are granted on the basis of competence in the subject concerned and for purposes of practice in that discipline. Professional competence has no relationship with the ability of the individual to teach. Very few individuals are born as good teachers; most have to learn it. It is therefore necessary that every one who is to be involved in teaching must learn how to teach by attending courses. The rule will apply equally to those appointed as full time teachers or part time teachers or Honorary. Again it has been presumed that only those holding postgraduate qualifications can teach undergraduates. The importance should be given to the level of what is needed to be taught and the ability of a person to teach. If ambulatory care medicine is what is important for the undergraduate curriculum, then those practising ambulatory should be given a chance to teach that subject. Given training in education they may in fact turn out to be better teachers for the undergraduate than the highly qualified specialist. Therefore, there is a need for augmenting and strengthening the Teacher Training programmes. For this a department of Medical Education needs to be established in each training institution. Such a department should be mostly run by the teachers themselves with the help of at the most one full time Educationist in each medical college. At present the promotion of teachers is entirely based on seniority and length of service. There is a need for establishing objective criteria of determining the abilities of the individual as a teacher and take this into consideration for promotions.

MEDICAL COLLEGES AND HEALTH SERVICES

In Pakistan, Medical Colleges and their affiliated hospitals are mostly considered as training places for undergraduate and postgraduate education. For the patients and the public they are the places for specialized treatment. This pivotal role of the medical colleges as the nucleus of the health services has not been appreciated by the administrators and planners. Realizing this role of teaching hospitals as the tertiary care centres for their geographic area it becomes obvious that they must be integrated with the existing health delivery system. They form the apex of the health system and should assume the responsibility of professional supervision of the secondary and primary health services of their community. This will include professional cover, training and Continuing education of the health care professionals in their area. Such an integration will greatly improve the problem of referrals and bring down the number of persons who throng to the out patients of the teaching hospitals. The majority of young graduates are ultimately going to work as either family physicians or general duty medical officers in various public and semi-public organisations. It is therefore, necessary that since the majority of the graduates will practice outside the hospital a major part of their training should also be in settings outside the hospital or where ambulatory care is being provided (e.g. dispensaries, out patients of the hospitals). (6) The present practice of limiting all clinical teaching to indoor hospital patients with serious and complicated diseases needing specialized investigations and treatment, is the main reason for the inability of the fresh graduate to work in settings outside the large hospital where there are no sophisticated diagnostic and treatment facilities. This is one of the major failures of the existing curriculum and instructional strategy. Closer links between the Medical College and the health services of the area will make it easier to provide such training to undergraduates.

FUTURE REQUIREMENTS OF PHYSICIANS

The number of physicians required each year for the future is linked with the availability of such positions and the development of the health delivery system. As it takes 5 years to produce an MBBS, this time period should be kept in mind when developing detailed plans. The number of students in each class of the medical colleges at present is high and is one of the main causes of lowered standards and indiscipline. It is recommended that the number of students in class for the clinical years (3-5) be reduced by setting up satellite campuses. This will also serve the purpose of upgrading the services

available in neglected geographic areas. Viewed in this way new satellite campuses built around existing District Hospitals become the vehicle for improving and upgrading the medical services of an area. It is therefore, recommended that new Medical College campuses should be located on the basis of population and the distance the people presently have to travel to reach specialist services. The new locations therefore, will be in places like Khairpur, Mirpurkhas, Badin, Jhang, Sargodha, Jhelum, D.G. Khan and Coastal Baluchistan. These new campuses should be established around the existing District hospitals where posts for some specialists already exist. Students will be admitted for each campus on the basis of domicile and residence. The number per class for each campus will be 25- 50. For years 1 and 2 the students will be sent to the existing colleges (where the number of their own students would have become less). After passing their 1st professional examination they will then go and join their own campus. This way the major capital cost of setting up a traditional new Medical College which goes for the Departments of Anatomy, Physiology, Pharmacology and Biochemistry can be saved. As suggested earlier 2-3 new medical colleges should be established on the Community based Problem solving model. The performance of these colleges will be evaluated after 10 years and if found successful could be applied elsewhere.

PMDC

At present the main functions of the Pakistan Medical Dental Council (PMDC) are (1) Registration of doctors and dentists; (2) Setting standards of medical and dental education which it does by laying down the curriculum of MBBS and BDS; (3) Laying down the qualifications and experience for appointment as teachers and examiners in undergraduate and postgraduate medical institutions of Pakistan; (4) Determining the equivalence of foreign qualifications; (5) Professional ethics and discipline. The functions of PMDC which affect Medical Education are the setting of standards of medical and dental education and the qualifications of teachers and examiners. To carry out these functions PMDC lays a rigid detailed curriculum which is based on a model in vogue in U.K. at the time of World War-II. The major concern of PMDC should be on the graduate (the end product of the educational programme) and whether he/she is fit to be licensed to practice. Instead PMDC has made the mistake of presuming that if it lays down the details of curriculum, who should teach and who should examine (which are really parts of the educational process) the quality of the end product will be ensured. Before any significant changes can be brought in medical and dental education in Pakistan the PMDC needs to be revamped. Its main function should be monitoring medical practice in the country by licensing only those who meet the minimum criteria and by evaluating the performance of registered practitioners through mechanisms such as public opinion. In this role PMDC should only be laying down the objectives of undergraduate and postgraduate training programme by specifying the types of functions that the holder of each qualification should be able to perform. For registration/licensing PMDC should conduct a National Licensing examination 3 or 4 times a year. This will also bring the desired uniformity among graduates from different Universities which is unfortunately lacking at this moment. For such functions the set up of the PMDC should include a group of full time educationists (both medical and non medical) trained in evaluation who will design and conduct the National Licensing examinations. PMDC should also devise ways and means of monitoring the quality of health care provided by physicians and dentists. At present most of the members of PMDC are officials and it is not surprising that those who execute the policies are not in a position to evaluate their own performance. In order to perform the watch dog functions PMDC should be like the judiciary totally independent of the executive side and be made up of full time members.

POSTGRADUATE MEDICAL EDUCATION

It is estimated that to meet the targets set for the year 2000 Pakistan needs 20,000 - 25,000 specialists. The number at present including Diploma holders is close to 8000. Thus in the next 11 years the country needs to produce 12- 15,000 new specialists, the exact number for each speciality and the levels required (Fellowship vs Diploma) needs to be worked out. At present training for postgraduate qualifications is available at all Medical Colleges either for University degrees like MD/MS, Diplomas

or FCPS/MCPS of College of Physicians and Surgeons. The number of postgraduate qualifications available in Pakistan are sufficient; may be even more than there should be. Certainly there is a need for establishing some sort of uniformity between Diplomas and Masters granted by different Universities. To meet the target of new specialists what is needed is increase in training position. In addition to the existing teaching institutions, training positions should be created in institutions in the private and public sector where adequate clinical material and teaching facilities exist. Unless new institutions are added there is a danger of the existing programme becoming so overcrowded that the quality of training will deteriorate. Exactly the thing that happened in undergraduate education.

DEVELOPMENT OF NEWER SPECIALITIES

With development of more and more specialities there is a need of starting training programmes in them. Amongst them the one that is most urgently needed is Family Medicine. Except for Aga Khan Medical College none of the Medical Colleges have a department of Family Medicine. This is a reflection of the solely hospital based under-graduate curriculum that we have at the present moment. If the suggestions for a revised curriculum mentioned above are implemented then a Department of Family Medicine will have to be created in every Medical College. Other areas in which specialists are needed but there is no training programme at the moment, or if present a very small one, are Community Medicine, Hospital Administration, Health Planning, Epidemiology and Biostatistics. Forensic Pathology is also a very neglected field and needs complete restructuring. At present there is no Medical Examiner or Coroner system. Forensic work is being done by Physicians with no training or background in Pathology. The post mortems that are being done are limited to gross examination only as there are neither any facilities for microscopic work nor is there any one trained in that area. Around the world this work is done by persons with training in Pathology as well as Toxicology and Law.

CONTINUING EDUCATION

Advances in the Biomedical field are occurring at an accelerating pace. Knowledge is changing so rapidly that it has been stated that 50% of what is taught today will be altered in five years. This puts a heavy responsibility on the present day Health Professional to keep upto date. This is why modern medical educationists put so much emphasis on training the undergraduate to be a life long self learner (cf. Objectives, item 6 above). What is needed is a support system to help the individual to keep abreast. Such a system should include easy access to current literature, well designed update seminars/courses and incentives. Currently no such system exists and the only thing in this direction are a few sporadic attempts by professional associations and societies.

CONCLUDING REMARKS

The ideas presented here are neither original nor are they being presented for the first time. These things have been said at numerous meetings, conferences and seminars all over the world including Pakistan. They are being presented now in the context of our present situation as a possible means of solving the problems confronting Health Manpower Development in general and medical education in particular. The major theme of the presentation is that educational programmes and institutions be given freedom to innovate and find alternate strategies of curriculum development, Instructional methods and evaluation. The present rigid, strait jacketed model of so many hours 'of this, so many questions on this and only so and so can teach is not in keeping with the dynamic developments taking place in Biomedical Sciences and Health Delivery Systems. It is not advocated that all institutions of the country immediately switch over from the existing system A to system B. On the contrary what is being advocated is that institutions be allowed to choose which ever system they think is best. If they wish to stay with the present system then it is by choice, but if they want to switch over to system B,C, or D then they should be permitted to do so. Over regulation of minute details by a central fiat is counter productive in an educational environment. Professional institutions should be treated like responsible adults and not like circus animals. None of the suggestions made above are going to make any difference unless education and politics are separated. A decision has to be made whether

educational institutions are for education or a testing ground of political strength. Today the institutions have become hostages of any political party or group which has an axe to grind. Government alone cannot correct this. Governments, political parties, parents in fact the nation as a whole is responsible for letting the students get involved with parties. Only a joint effort by all will be able to return educational institutions to education.

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